## **PHILISTOR**

Studies in Honor of Costis Davaras





Costis Davaras, Hagios Nikolaos, 2008.

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#### Studies in Honor of Costis Davaras

edited by

Eleni Mantzourani and Philip P. Betancourt



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Copyright © 2012 INSTAP Academic Press Philadelphia, Pennsylvania All rights reserved Printed in the United States of America In Greek the word  $\phi i\lambda i\sigma \tau \omega \rho$  (philistor) means the lover of learning, of history, the person who constantly seeks new knowledge.

The characterization of philistor fits the personality of Costis Davaras because he has always tried to expand his knowledge horizons and has never limited himself solely to his fields of specialization. His entire life is full of diverse activities, philosophical self-reflection, and sociopolitical interests.



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#### Biography of Costis Davaras

Eleni Mantzourani

Costis Davaras was born in Athens on the 19th of March in 1933. He grew up in a highly intellectual environment. His mother, Julia, came from an old family of Cephallonia and was awarded the Ouranis Prize for Literature. Costis graduated from the high school of Plaka, located just below the Acropolis. The window of his room overlooked Hadrian's Gate. He studied Archaeology at the Universities of Vienna, Munich, and mainly Athens, from which he received his first degree in 1956. His professors of archaeology, indeed all of them outstanding scholars, were Ernst Buschor in Munich and Spyridon Marinatos, Georgios Mylonas, Nikolaos Kontoleon, and Anastasios Orlandos in Athens.

During his undergraduate years, he took a degree at the Palmer Technical School in Athens as a wireless operator of the Merchant Marine in order to be able to travel, which he actually did for a short time, visiting various countries. This, among other features of his character, shows his inquisitive spirit. He continued his postgraduate studies as a bursar of the German State in Munich. His Professors were Ernst Homann-Wedeking for Archaeology and Hans Wolfgang Müller for Egyptology. He served in the Greek Army as an interpreter and translator for several NATO languages.

Before entering the Greek Archaeological Service he served, for a short time, as an assistant to the Ephor Markellos Mitsos in the Epigraphical Museum in Athens and Ioannis Threpsiades in the excavations at Athens and the Temple of Artemis at Aulis in Boeotia. Davaras entered the Archaeological Service in 1960 after examinations, which, unfortunately, were later abolished for some decades, indeed a heavy blow in meritocracy. His first position as Epimeletes was in Herakleion under Nikolaos Platon and later under Stylianos Alexiou, both well-known scholars and excellent tutors. At that time, those three men were the only archaeologists serving on Crete.

He was an assistant to Platon in several of his excavations all over Crete, including the peak sanctuary at Kophinas and the palace of Zakros. He also conducted his own excavations, including tholos tomb II at Apesokari and the important caves of Skoteino near Knossos and Eileithyia at Inatos. A second campaign, in collaboration with Nikolaos Platon, was undertaken at Eileithyia. He also brought to light several Minoan chamber tombs and a Geometric tomb at Knossos.

In 1964 he was transferred to Athens as Epimeletes of Attica and Boeotia. There he excavated the Geometric cemetery of Anavyssos and the Thesmophorion of Eretria, later turned over for publication to Ingrid Metzger of the Swiss School of Archaeology in Greece. During this period he was the first Greek archaeologist to be trained by the Navy in underwater archaeology. He even directed a research team below the temple of Poseidon at Sounion in order to locate fallen blocks and part of its sculpture.

At his own insistence he was re-posted to Crete in 1965, this time as Head of the Archaeological Service for West Crete (Chania–Rethymnon) with Yiannis Tzedakis as his assistant.

Davaras's excavations in the region included the tholos tomb at Maleme, a tholos tomb at Apodoulou, and the rich peak sanctuary of Vrysinas overlooking the Rethymnon area. His main care in this new post was the legal protection of the numerous archaeological sites of West Crete, which, until then, were not officially listed as such and thus "ignored" by the State. It should be noted that the "Palace of Minos" at Knossos and a narrow zone around it, under the auspices of the British School at Athens, was the only legally defined archaeological site on Crete before that time. By specific order of the Ministry he also tried, alas in vain, to protect the Venetian-Ottoman old towns of Chania and Rethymnon and even received serious threats on his life in his office by a furious fishmonger. It was during this period that he married his beloved Dione, a Baroque harpsichordist and his life companion ever since. In 1968 he went to the Sorbonne University in Paris for his Ph.D. under the supervision of Pierre Demargne, Henri van Effenterre, and Jean Deshayes. His two-volume typewritten dissertation was a study on the Minoan-Mycenaean Double Axe, including a corpus of all then-extant axes in corpore—the functional ones,

the votives, and the representations in painting. The subject was examined mainly from a religious point of view. Davaras managed to show that the functional double axe was definitely a tool and not a weapon, as even today many scholars continue to believe it was a weapon. The dissertation was not published, as this was not required by the French Law, pending the collection of photographs for publication in the German Series *Prähistorische Bronzefunde*, a work that would, by agreement with H. Müller-Karpe, also include the pottery. However, the future reserved much adversity for him and his family.

After his return to Greece in 1970, and during the dictatorship of the Colonels, he was not allowed to go back to Crete, his second home and place of archaeological interests. Instead, he was transferred to Sparta, in Laconia, as well as to Mystras, as an "acting" Epimeletes of Byzantine Antiquities. There he managed to officially establish and define the ancient town of Sparta for the first time as an archaeological site. Additionally, he organized, again for the first time, the extensive archives of Mystras. It also should be noted that Davaras protected with strict rules the Medieval town of Monemvasia. A year later he was again transferred, this time to Patras for six months, under the Ephor Photios Petsas, who was also in disfavor.

At his insistence, he managed to return to Crete. This time he was appointed as a newly promoted Ephor in East Crete (Nomos Lasithiou and Malia). By necessity, East Crete had also been "promoted" to an Ephorate, the now well-known 24th Ephorate of Antiquities. This is the only reason why Crete has three Ephorates, and not two or four.

As a matter of fact Davaras was the first and last Ephor of this Ephorate, for the title of "Ephor of Antiquities," the oldest title in Greece (since 1830), was later abolished by the newly elected administration that advocated "the equality of all civil servants" with titles such as "Director of Antiquities" and so forth. However, the title of Ephoreia paradoxically remained. Characteristically, all administrations that followed until today did not reinstate the title of the Ephor, as archaeologists have obviously been "the black sheep" of the state apparatus, above pressures and other concomitant evils.

When Costis Davaras became the head of the new Ephorate in Hagios Nikolaos, its state was

embryonic, with the telephone on the floor. He had to organize everything *ex nihilo*. He considered it his duty to begin the legal protection of the numerous and highly important archaeological sites of East Crete, as he had done in West Crete. This was, indeed, an onerous and difficult task, as the protected areas (Zones A and B) had to be accurately defined on the map. At the same time this was a very delicate enterprise as these areas were not supposed to be excessively large and beyond the rule of "pan metron Ariston." The trouble was that these new measures went hand-in-hand with the beginning of the touristic development of the island. Thus, a reaction to this novel legality was to be expected.

For instance, Davaras managed to stop the demolition of the Venetian fortress of Spinalonga (albeit outside his official jurisdiction), the spolia of which were being taken and imbedded as decoration in the "grand hotels" then under construction. Unfortunately, he did not manage to bring about the conviction in court of a serious perpetrator of bulldozing part of the Minoan town of Palaikastro, who was actually a school teacher! Again regarding Spinalonga, Davaras managed, despite the serious threats he received, to avert the construction there of a base for torpedo boats, which the administration of the Colonels wished to build. Fortunately, finally they realized the enormity of it and constructed the base near Cavo Sidero. Some years later, after the Colonels were gone, the dismal fate of another small island was also averted: the Air Force wished to make the beautiful, subtropical Chryssi to the south of Ierapetra a target area for bombing. Fortunately, the Ministry of Defense gave up this enterprise, persuaded by Davaras's personal arguments.

After some time he was again transferred to Komotini in Thrace, but he never went there as he was then suspended from his duties. He was reinstated after the happy end of an adventure in a court of justice.

As an Ephor in Hagios Nikolaos Davaras installed a new provisional exhibition at the Museum, and he conducted many rescue excavations under very difficult conditions, some of which, alas, came too late. In any case, the volume of new material collected was so enormous that it would take several archaeological lives to be properly published. Perhaps the most important of these excavations was the exploration of part of

the Early Minoan I Cycladic cemetery at Hagia Photia, near Siteia, with no assistants, architects, photographers, or other assistants, but with armed workers watching it at night. This excavation is now partly published in collaboration with his close friend Prof. Philip Betancourt.

Among Davaras's other important excavations were those of several Minoan peak sanctuaries in various stages of plundering, including Traostalos, Petsophas (re-excavated), Prinias Zou, Modi, and others. The re-excavation of the oval house at Chamaizi was also crucial, as he was able to clarify its function. It was neither a peak sanctuary, as usually believed, nor oval because of lack of space. The early burial cave of Hagios Charalambos Gerontomouri on the plateau of Lasithi, with its rich finds—especially seals and a great number of human skulls, some of them showing signs of trepanation, the earliest in Greece—is also included among Davaras's field work. This excavation was later continued with Phil Betancourt as codirector. Other less important excavations include Minoan and later tombs and cemeteries (especially the one at Krya in Siteia) as well as a number of Hellenistic and later houses at Hagios Nikolaos and Ierapetra.

Last but not least in his long list of fieldwork comes the important excavation of the Late Minoan I "cult villa" at Makrygialos on the southern coast. According to his view, this building is unique insofar that it closely imitates the Minoan palaces on a very small scale. He gave the edifice this strange name because of its rich religious elements, although he later thought that it should rather be named a "mini palace," as it is actually a real miniature of a Minoan palace in several of its architectural features. In fact, its central court has the dimensions and orientation of the palace at Petras on the opposite north coast. He does not consider it as a simple "country mansion" aping its superiors. Instead, he believes that, exactly because of its close resemblance, its functions would have been similar to those of the palaces, especially regarding religion. Hence, it was initially dubbed a "cult villa." He has raised the question whether the edifice at Makrygialos could perhaps help us better understand the main function of the palaces, which it so closely mirrors.

It is true that Davaras is very happy and proud that he had the opportunity to re-open East Crete

to the excavations of American archaeologists. This was done under the form of a *synergasia* as a co-director. These excavations took place at Pseira and Mochlos for several campaigns, in collaboration with his eminent colleagues and friends Phil Betancourt and Jeffrey Soles.

These excavations, with extraordinary results, funded with grants from several sources, including the Institute for Aegean Prehistory (INSTAP) founded by Malcolm Wiener, the great benefactor of this branch of archaeology, are being published by the INSTAP Academic Press in a rhythm and perfection unthinkable for Greece. Thus, Davaras is quite proud of his official archaeological contribution to these projects. Many eminent scholars involved in Minoan archaeology have, on different occasions, praised his role in these projects.

It should be mentioned that the very last official paper out of several thousands Davaras signed as an Ephor was the one that founded, from the Greek side, the INSTAP Study Center for East Crete at Pacheia Ammos, a center that astounds and dazzles every visiting Greek archaeologist.

He has always been happy and proud that he has been the instigator of the new British excavations at Palaikastro, a site that was then seriously endangered by developers, both local and foreign. The new excavations have not only been extremely successful, but they stopped pending threats—at least for the time being. The Cavo Sidero area, property of the Toplou monastery north of Palaikastro, seemed at this time to be safe, and so no special measures were taken.

Another side of Davaras's character may be traced through an interesting event. In an unusual way he was able to contribute financially to the great Greek excavations of Zakros. He refused the offer of a Mexican millionaire to re-open the excavation of the famous Diktaian Cave, which must certainly still contain many treasures in its bowels. Instead, he persuaded the gentleman to support the Palace of Zakros project.

As tourism developed by leaps and bounds at the shores of Crete, it was unavoidable that woes were yet to come. In 1985, as he continued to press to save archaeological sites in the face of mounting pressure from building, Davaras was once more suspended from his duties as an Ephor for East Crete for five long years. He was ordered to go to

Herakleion to the "Archaeological Institute of Crete," which until then did not exist. He has confessed that he was personally grateful to the Minister of Culture Melina Merkouri, who graciously allowed him to stay in the Hagios Nikolaos Museum in "suspended animation," as he humorously states. As a measure of clemency he stayed there to supervise its exhibition and cleanliness.

In 1990, under the new "Coalition Administration," Davaras was re-instated in his duties as an Ephor, but as he says, "he had lost his mood" for the Archaeological Service and turned to a new challenge, the University of Athens. In 1993 he was elected Associate Professor of Minoan Archaeology and later Full Professor. There he concentrated on his new duties, a real heaven in comparison to the past, as he usually says. He retired as Professor Emeritus in 2000. To quote his own words, "now I have more time for carefree, less stressful research."

Now his ardent wish and vision is to see in the European Union commission a new member: a Commissioner for Cultural Heritage who would cover a most important area, until now sadly unprotected and badly needed for Greece.

Davaras has received many academic and other distinctions. He is Member for Life of the Archaeological Society at Athens; Honorary Member of the Historical and Archaeological Society of Crete in Chania; Honorary Citizen of the Municipality of Ierapetra; Korrespondierendes Mitglied des Deutsches Archäologischen Instituts, Berlin; Chevalier dans l'Ordre des Arts et Lettres de la République Française; Member of the Editorial Board of the periodical *Kadmos*, Berlin; and General Editor of the periodical *Cretan Studies*, Amsterdam. Finally, he has received an Honorary Diploma from the University of Tehran for the protection of the endangered remaining mosques on Crete.

Indicative of Costis's vividness, creativity, and overall devotion to a better future for Greece is his very recent participation in the newly formed party of Greek Ecologists, of which he is an active member. Costis is one of the last noblemen in the Greek and international archaeological family and will always remain "young at heart." From the depth of my heart, I wish him all the best in every aspect of his life. He still has much to offer us.



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kg

kilogram

#### List of Abbreviations

ASCSA	American School of Classical Studies	km	kilometer
	at Athens	L.	length
cm	centimeter	LBA	Late Bronze Age
dia.	diameter	LC	Late Cycladic or Late Cypriot
dim.	dimension	LH	Late Helladic
EBA	Early Bronze Age	LM	Late Minoan
EM	Early Minoan	LN	Late Neolithic
EN	Early Neolithic	m asl	meters above sea level
FAF	folded-arm figurine	m	meter
gr	gram	MACFA	macroscopic ceramic fabric analysis
h.	height	max.	maximum
HM	Herakleion Archaeological Museum	MHS	Minoan Hall System
HNM	Hagios Nikolaos Archaeological Museum	MM	Middle Minoan
HTR	Hagia Triada	MN	Middle Neolithic

XXX	1	1

MNI minimum number of individuals th. thickness width personal communication pers. comm. w. personal observation pers. obs. wt. weight preserved X-ray fluorescence XRF pres. Archaeological Museum RM of Rethymnon



# Two Stone Kernoi from the Juktas Peak Sanctuary

Alexandra Karetsou

with a contribution by R.D.G. Evely

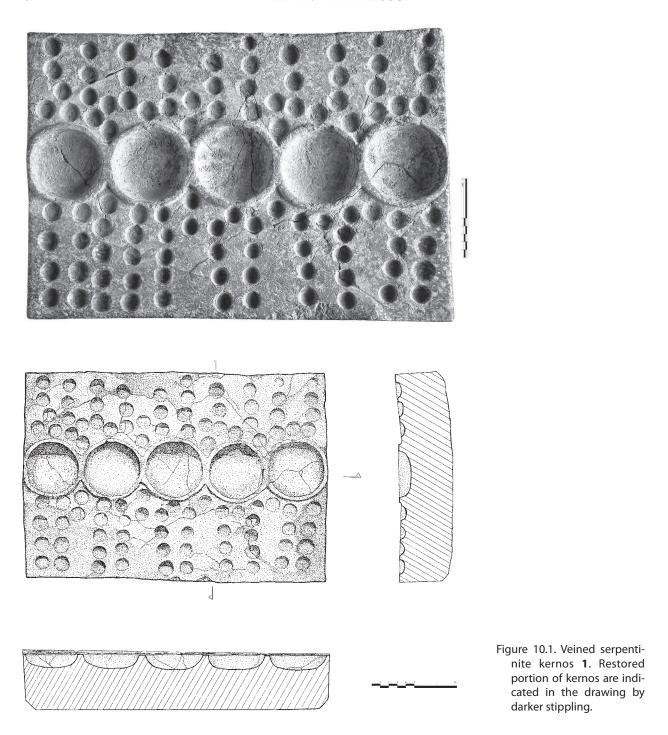
The purpose of this paper is to present two stone kernoi, in secondary use, from the altar and the Protopalatial deposit of Terrace I, in the open area of the peak sanctuary on Mt. Juktas (Figs 10.1–10.6).\* This type of find possibly sheds light on an issue discussed for several decades. What were stone kernoi used for? Were they intended for divine or secular games, or for cult practice?

The term "kernos" has been used to describe several different types of object. Here I am referring to kernoi of the libation-table type, often called "block vases" since they are portable and of a specific shape. Ceramic vessels with receptacles are beyond the limits of this study (Pollitt 1979; Bignasca 2000).

providing access to the Heraklion Museum facilities, and to G. Rethemiotakis and M. Tsipopoulou for the information on their excavations at Galatas and Petras, respectively. Figures 10.1, 10.2, and 10.15:a, c are by Giannis Giarmenitis, the artist of the 2nd Ephorate of Antiquities. Figures 10.15:b, d and 10.16 are by A. Astrinaki, while Figures 10.17 and 10.18 are by I. Pappou. The kernos photographs are by G. Xylouris, except for Figure 10.18, which is by G. Papadakis. The graphic processing of the material was undertaken by D. Kontopodi, and R. Tzanaki translated Karetsou's text into English.

<sup>\*</sup> I offer this small contribution to the festschrift in honor of the excellent Cretologist and friend, Professor Costis Davaras, with the deepest appreciation for his life—with respect and love. Professor Davaras has opened paths in Aegean archaeology with great dedication, self-sacrifice, generosity, and a rare archaeological ethos. For his study of Minoan and Archaic Crete, both in East and Central Crete, all of us who form the small Aegean family owe him deep gratitude.

I would like to thank the editors of this volume for inviting me to contribute. Many thanks are due to R.D.G. Evely for his appendix on manufacture. I am also grateful to A. Kanta for



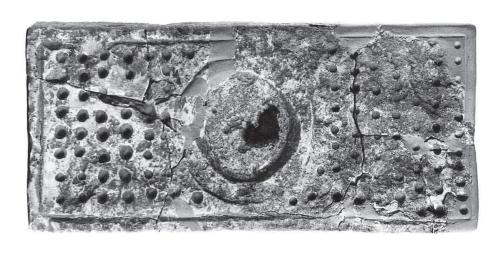
Stone kernoi have been found in settlements, on terraces, in caves, in tombs, and in sanctuaries. On their upper surface are shallow cavities, usually positioned around a central basin into which offerings could be placed. However, portable stone offering tables—of which there are abundant Minoan

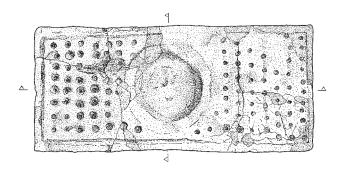
examples, mainly from cult places such as Syme, Juktas, and the Dictaean Cave—are a different type of artifact than the kernos-type block vases and, obviously, the stones with cupules. Kernoi are connected to tables of offering since they always have one or more central cavities, but their function

is "unrelated" (Muhly 1981, 254–255). The extremely numerous stones with cupules, on the other hand, which are not usually regular in shape and, indeed, are often the exact opposite, are obviously intended for a different type of use, most probably for games. The Juktas kernoi obviously do not belong to this category (Figs. 10.1, 10.2).

The recent publications by Hillbom, Whittaker, and Ferrari and Cucuzza have brought the issue of Minoan "cup-holes" back to the forefront of Aegean archaeology (Whittaker 1996, 2003; Hillbom 2001, 2005; Ferrari and Cucuzza 2004). Hillbom and Whittaker justly stress the impracticability of these vessels as so-called kernoi. Hillbom's work has collected and analyzed all kinds of archaeological material from Bronze Age Crete that could be connected

to games and gaming, with a database of 160 artifacts from 16 archaeological sites. His typology, however, also includes block kernoi, stone tables of offering, and cup-holes. Whittaker and Ferrari and Cucuzza have provided a complete database of the cup-holes from Kommos and Phaistos, with reservations on their final interpretation. The question is why this usage was not generalized. No such vessels have been discovered at the palace of Petras, while only one or two fragments have come to light at that of Galatas. It is without doubt that new materials will be added over time, for example, from the necropolis of Hagia Triada. The finds from the palaces of Phaistos and Knossos will also increase in the near future.





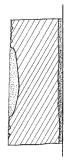
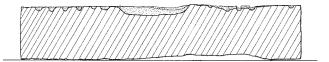
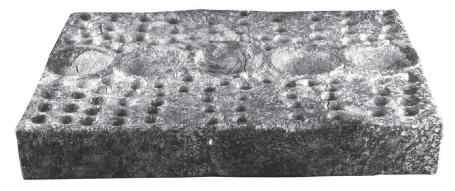


Figure 10.2. Poros kernos 2. Restored portion of kernos are indicated in the drawing by darker stippling.





а





Figure 10.3. Kernos 1: (a) threequarter view; (b) narrow side; (c) long side.

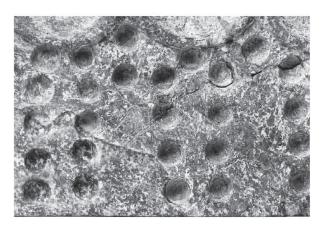


Figure 10.4. Detail of kernos 1 upper surface.



Figure 10.5. Detail of kernos **1** base with encrustation.

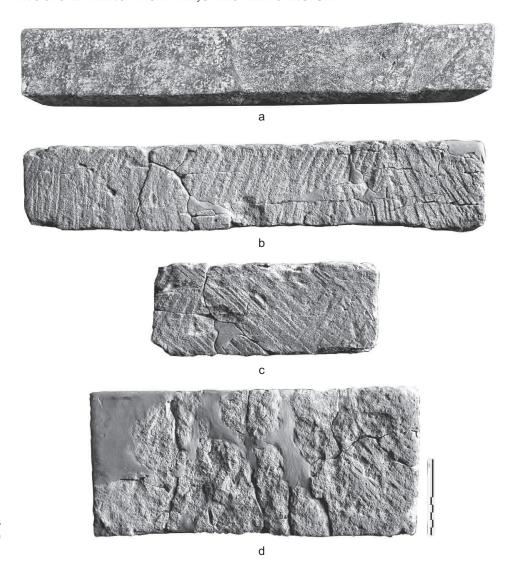


Figure 10.6. Poros kernos **2**: (a, b) long sides; (c) narrow side; (d) base.

# Description of Objects

1. HM 3588 (Figs. 10.1, 10.3–10.5). Rectangular kernos-type table of grayish-green serpentinite with white veins. L. 50.5, w. 35, h. 9.5 cm. Five shallow basins surrounded by a circular projecting rim are preserved, axially and clearly off-center, on the upper surface. The basins do not communicate with each other and are reminiscent of clay cups with a slightly curved rim. On either side are—in total—100 small shallow cavities. On the wider portion, 54 cavities are set in 11 parallel rows forming 5 paired sets. Four of them are joined in a roughly petaloid pattern by an intermediate cavity on the side nearest the central basins. On the narrower side there is a similar pattern of 46 cavities in 10 almost-parallel rows, again arranged in pairs, with extra irregular cavities at the top of each pair.

**2.** HM 3587 (Figs. 10.2, 10.6). Kernos of local limestone, which is soft as chalk and criss-crossed by layered fractures on its narrow sides. L. 42, w. 18, h. 8 cm. A very shallow central basin preserves part of the relief rim. The latter has flaked off and is preserved mostly as an outline. As with kernos **1**, the main basin is not precisely centered. The 104 very shallow (6 x 4 mm) cavities are set in parallel rows, again not always regular, with 46 cavities in six rows on one side and 58 cavities in seven rows on the other, in a simple geometrical pattern.

As R.D.G. Evely notes below in his appendix on manufacture, the shallow cavities of the wider side of kernos 1 are of almost the same diameter and depth (1.2 x 1 cm), with better polishing and uniform

drilling, although their geometrical pattern is also uneven. The shallow cavities preserving drill-marks are narrower and not always of the same depth (8–9 mm; Figs. 10.1, 10.4). The cavities of the narrow side are less symmetrical, the distance between the rows is less regular, and the cavities are generally shallower. This gives the impression that the processing was begun by one person and finished by another. The underside, roughly worked, was not intended to be visible. Part of the surface is covered in a hard encrustation (Fig. 10.5).

Kernos 1 has been restored from several fragments and bears many rather shallow fractures, presumably also resulting from the weight of the stones lying on it. However, it is preserved in very good condition and is only partly reconstructed. The polish is well preserved in some places but has dulled in others.

It is worth noting on kernos 2 that the state of working on the vertical sides where the traces of the tool, mainly oblique, is clearly visible. The upper surface is worn; one part in particular is preserved to a greater depth as a finished surface, while the corresponding side has sunk a little due to wear. The cavities on one side are thus preserved to a greater height, while those on the other are less regular. The base is rough, almost unworked. Traces of damage from fire remain in places.

### Context

The peak sanctuary of Mt. Juktas is aligned north to south but "looks" east. It consists of four stepped terraces and a row of five rooms (with a sixth to the north), descending the eastern slope of the summit between Terraces II and III. The smallest and highest Terrace I is constructed practically on the edge of the sheer cliff to the west. The lowest Terrace IV, east of Terrace III, has only been partly excavated (Karetsou 1978; 1984, 601–602; 1985).

On Terrace I a stepped altar was built over the deep fissures of the bedrock (Figs. 10.7–10.9). The excavation of one of these led to the discovery of a deep chasm or sinkhole, which has been investigated to a depth of 10.50 m without touching bottom (Fig. 10.8). The two upper terraces and the altar are accessed by a ramp along the southern limit of the terrace (Karetsou 1974, 230–231; 1981, 138–145; 2003, 49–52).



Figure 10.7. The altar from the south.



Figure 10.8. The chasm from the northwest.



Figure 10.9. Terrace I, south side of the altar, with arrows indicating the kernos find spots.

The built altar is in the shape of an elongated, stepped low platform (Fig. 10.7). Its total length would have been approximately 11.25 m, with a width of 3-3.40 m and a height of 0.45-0.50 m. The platform is of uneven width because, as it had been founded on rock fissures, the builder had tried to cover these with stones and pave the upper surface. Among the paving stones used was a dressed slab of poros with an incised star symbol on its underside (Karetsou 1974, 232-233; 1978, 252). The northernmost and southernmost sections of the altar are preserved, while the larger intermediate part has been destroyed, and its building material has covered the mouth of the chasm. The upper part of the northern section (preserved dimensions 3.10 x 3.85 m) forms a pavement of local limestone (sideropetra). A low wall-like step runs along the eastern side of the altar (L. 50, h. 45 cm). Another

similar step runs along its southern side (L. 36, h. 46 cm).

Clear excavation data show that the altar was plastered with white stucco (Fig. 10.10). The area east and in front of the altar had been filled with a rubble of larger stones at the bottom and smaller at the top: there is evidence that this too may have been coated with coarse white stucco (Evans 1921–1935, I, 153–154; Karetsou 1974, 234).

The larger kernos (1) was found placed upsidedown, in secondary use, in the southern section of the altar, almost on the bedrock (Fig. 10.11). There was nothing to betray its presence. Over it were set massive elongated *sideropetra* stones, the weight of which is presumably responsible for the fractures in the kernos. It would have escaped notice if our small section, with dimensions of 1 x 0.8 m, which was made in order to ascertain the date and



Figure 10.10. East side of the altar during discovery with preserved offwhite stucco.



Figure 10.11. Kernos **1** as found during excavation.

construction of the altar, had been located two meters farther north. The kernos was complete except for one corner, where a small stone of the right shape had been carefully set to fill the space. Other gaps had also been filled with smaller stones. The find context of the kernos produced a few clay pebbles, three clay bird figurines (Fig. 10.12), abundant Middle Minoan (MM) IB–IIA ordinary and miniature handleless cups, and some minor clay offerings of indeterminate shape (Karetsou 1974, 236).

The excavation of the fill of Terrace I, and especially the area south of the altar, uncovered a small paved area. During the investigation of this area, we were led to a pit, 40 x 80 cm in size, containing a cache of 36 copper votive double axes (Fig. 10.13; Karetsou 1974, 232–233). Positioned upside-down in secondary use, limestone kernos 2 was set into the northern side of the pit, on the burned bedrock (Fig. 10.14). The double axes are quite possibly the foundation deposit of the sanctuary. Michailidou's view that this was an early form of exchange token supports this hypothesis (Michailidou 2003; 2005, 20–22).



Figure 10.12. "Pebbles" and clay bird figurines (indicated by arrows) from the stratum in which kernos **1** was found.



Figure 10.13. Pit showing votive copper axes in situ.



Figure 10.14. Foundation deposit of the shrine: (1) pit; (2) kernos **2** in situ.

A few more words on the find context: both the double axes and the finds mentioned above-all of which are heavily charged with symbolism—form part of the Protopalatial deposit of the sanctuary. They were discovered in a thick layer of ash—what Evans calls an "ash altar" (Evans 1921-1935, I, 157-158; Karetsou 1974, 234). The deposit consisted of pure ash, animal bones mainly from small ovicaprids, charcoal, and abundant pottery, over 60% of which was made up of libation vessels (Karetsou 1978, 247–249; 1985, pl. 142: $\alpha$ – $\gamma$ ). There was also a large number of round clay "pebbles" of various sizes (measuring 1-1.5 cm in diameter and being of the type described by Myres at Petsophas), many rhomboid clay "pebbles," and some triangular clay disks. The "pebbles" were thickly scattered throughout the fill of the deposit layers (Myres 1902–1903, 379; Davaras 1976, 245-248; Peatfield 1992, 68; Nowicki 1994, 34-37; Tzachili 2007, 256-258). Sea or river pebbles were also found, as well as clay snakelike models, some of which would have formed applied decoration on other offerings. There were also V-shaped clay models reminiscent of schematic bucrania, embryo-shaped offerings, bird figurines—either separate or attached to the rim of open vases-and testicular and phallic models, and objects of uncertain definition (Karetsou 1978, 256).

## Discussion

The older studies and publications of Evans, Boyd, and of the researchers of the French School— Chapouthier, Demargne, and van Effenterre—and, much later, of Hood, have underlined the difficulty of determining the use of the so-called kernoi (see Hillbom 2003 for full bibliography). Chapouthier was the first to identify the issue with respect to the famous Malia table. He noted the same use of vessels from Phylakopi, evoked the strong tradition surviving in the ceremonies of the Eleusinian Mysteries, and called it, not unjustly, a "monumental form." He proposed its use as a table à offrandes for making offerings of agricultural goods, i.e., panspermia. He then took a further step, linking tables of offering to rites of passage, without excluding their apotropaic significance (Chapouthier 1928). This interpretation is, of course, at complete odds with the views of Evans, Boyd, and Levi, who adopt the game

hypothesis, clearly influenced by Egyptian models. Van Effenterre, also a strong supporter of this game view, argues in his famous article, "Cupules et naumachie," that the circles of cup-holes were intended for games (van Effenterre 1955).

One of the most important overviews of the subject is that provided by Hood in his "Minoan Cup Marks" article (Hood 1995; see also Hood 1984). In that article he groups the material into three categories, for two of which the question of games versus kernoi was left open. As regards the Gournia material, Hood argued that it might have been used for libations and was connected to nearby baetyls (Hood 1989). Warren and Buchholz also discuss both the gaming and the ritual functions of the cupholes (Warren 1984, 321–322; Buchholz 1987); the former prefers the kernos interpretation. Of particular interest is Whittaker's study (2003), in which,

using the Kommos material as a starting point, she re-examines the rich parallels from Gournia, Malia, and Vasiliki and discusses the relationship between gaming and ritual, which cannot be ruled out. In the above studies, however, it cannot be overlooked that the term "kernos" is often used interchangeably with "cup-holes."

Concerning the Juktas material, I consider that the kernoi discussed here form a different, separate category of ritual equipment. It is no coincidence that both come from the Protopalatial ash layer extending under the MM III building (Fig. 10.15:a–d). The excavations of the past 30 years have shown that artifacts encountered at peak sanctuaries can be grouped in two main categories: votive offerings and ritual equipment. The ash layers are usually interpreted as indicating sacrificial sites meant to consume the offerings (Myres 1902–1903, 358; Davaras 1976, 245–248). Even more important is the fact that the altar and chasm are not just a "central feature;" they are the exceptional one on the level of symbolism (Nowicki 1994, 39).

It should be noted that the two kernoi are not the only such vessels found; out of a total of over 500 complete or fragmentary stone offerings, many pieces proved to be portions of large, small, and miniature tables of offering. There are another four fragments of larger or smaller block kernoi, but only one example is of a "kernos" in the true sense, having intercommunicating hollows for mixing liquids. This is the very elaborately worked alabaster kernos HM 3797 (Karetsou 1981, 147, fig. 23). Of interest is the large, unfinished portable kernos of grayish-white banded schist, HM 3900, which preserves a large circle containing at least four smaller cavities (Fig. 10.16); it is a type impossible to place in any existing category. At least three examples of rectangular tables have four smaller cavities set around the central basin, one in each corner, or only four shallow cavities of the same size without a central basin (e.g., HM 4545 of serpentinite); whereas rectangular limestone vessel HM 4213, also from Juktas, has three large separate hollows with no smaller cavities (Fig. 10.17). The Juktas material resists categorization. All these, however, were found scattered randomly in the deposits of Terraces II and III among a multitude of other offerings of all kinds; therefore only the two kernoi discussed here were actually discovered in situalthough in a secondary deployment.

The two portable kernoi from Juktas under discussion "do not look like any other sets of holes" (Hillbom 2005, 92-93). I do not share van Effenterre's opinion that the small cavities "could have been made for inserting some kind of stalk or shaft" (van Effenterre 1980, 61 n. 45), as they are far too shallow, especially in the case of the limestone kernos (2). Indeed, the term "hollow" or "cavity" is a euphemism; they could only have contained a few drops of liquid or grains of wheat. In the case of a game, too, the cavities would not have been easy to use. The interesting thing about this type of kernos is that it is a sort of combination of offering table and cup-holes. The layout of central basin and peripheral cavities functions more on a symbolic level rather than actually forming receptacles for specific offerings. I do not doubt that both kernoi were originally used for religious practice. In any case, they could not possibly have been games, whether divine or otherwise, given that the layout is asymmetrical with an unequal number of cavities.

Thus the Juktas kernoi cannot be fitted into any of the existing typologies; they can only be compared with individual examples. In terms of form, the larger kernos 1 bears comparison with the unique table of offering from Psychro, which is inscribed in Linear A. The latter was also found in the lower strata of the Upper Cave in a ritual context of charcoal and sacrificial remains located close to a rock altar. I would like to stress Evans's view that this was an object of "baetylic significance" (Hogarth 1899–1900, 98–101; Evans 1921–1935, I, 627, fig. 465).

Five cylindrical basins in a row are also found on the "rough kernos" HM 2276, perhaps from the Pillar Crypt of the Temple Tomb at Knossos (Fig. 10.18). This is not a Minoan type of kernos but more likely an Egyptian import; although of Predynastic type, it was still used in a much later building, probably in Late Minoan (LM) II-IIIA (Karetsou, Andreadaki-Vlazaki, and Papadakis, eds., 2001, 245, no. 246). Other similar examples of cult equipment are the stone tables of offering with depressions along the rim found at Kato Symi, the heavy cylindrical stone found reused in the foundations of a Roman house at Knossos, or the example from Myrtos (Lebessi 1975, 322, pl. 252A; Warren 1984, 321-323). The primary feature of these artifacts is that their find spots are far more diverse than those of the cup-holes and stone offering tables.

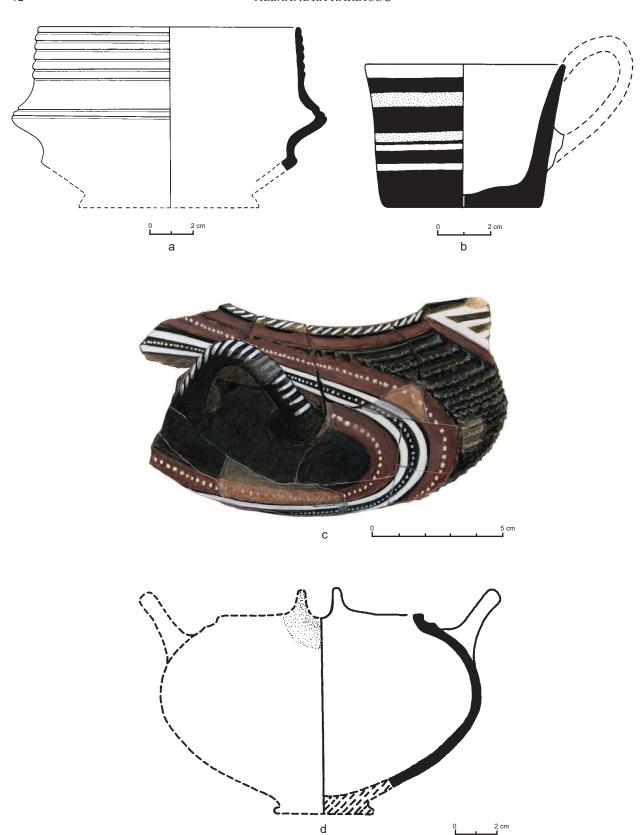


Figure 10.15. Pottery from the deposit of Terrace I: (a) no. 85-2010; (b) no. 85-2011; (c) watercolor of polychrome bridge-spouted jar with Barbotine decoration, no. 85-2020; (d) section of bridge-spouted jar no. 85-2020.

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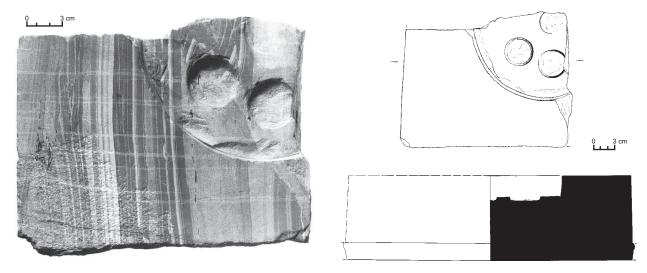


Figure 10.16. Unfinished(?) kernos HM 3900 of grayish-white schist.

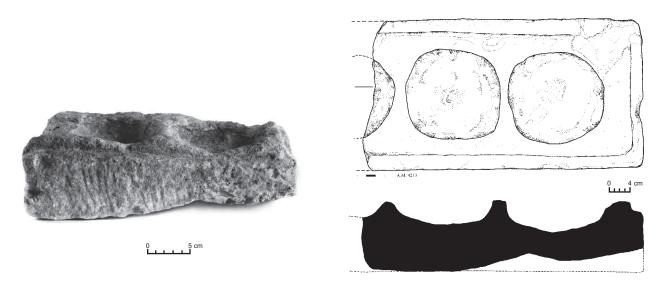


Figure 10.17. Poros kernos HM 4213 from the Juktas Peak Sanctuary.

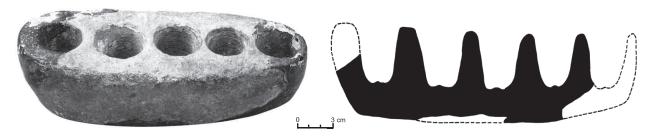


Figure 10.18. Sandstone(?) kernos HM 2276 from the Temple Tomb at Knossos.

I would like to close with a reference to the kernoi from Mochlos, not because they belong to the same typology as the Juktas material, but due to the location in which they were found: near a fixed altar in a funerary cult context. As Soles justly observes, "the identification of these stones as altars or offering receptacles has long been debated, but the find of two stones in a clear cult context at the peak sanctuary on Mount Juktas . . . provides ample evidence for the ritual use of these stones and should put an end to the debate over their identification" (Soles 1992, 222–223).

# Appendix A: Manufacture of the Kernoi

by R.D.G. Evely

Generally, the Minoans worked up the exterior of a stone vessel to a quite advanced stage of blocking out before turning their attention to the interior or indeed any exterior refinements. With such simple shapes as a block-kernos, this custom has meant that the exterior was left in a relatively unfinished state as there was no need to return there for additional work (apart from the top surface). Or at least this is the case with these items from Juktas.

#### Kernos 1

Serpentinite is a fairly hard stone to work. Metal tools seem not to have been employed in regulating its form here, or more correctly, no certain traces of their passage are now visible. The base carries percussion marks—small dimples, as a small flake has been spalled or crushed off. These ought to be from the application of some stone hammer, but experimentation is required to check this point; a metal punch might yet prove possible too. The end result is neat enough, but not truly flat. The sides and tops were further worked to achieve a better evenness of line. A low polish was created, and only a few of the fine abrasion scratches of its working are visible. A block of sandstone or a lump of pumice would start the process; finer grades or even powders applied by a cloth work up the polish. This finish has obscured all previous stages of work.

#### Kernos 2

The basic block of limestone (Neogene) must have been initially only rather roughly prepared. The irregular profile of the base and, to a lesser extent, the top (somewhat surprisingly, but see below) show the degree of this unevenness that was tolerated. In contrast, the sides were treated better. Though tool traces are fairly few on the base, they look rather different compared to those on the sides. The latter are almost certainly the result of a punch-like tool of metal being driven across the face of the stone by a series of individual blows to make a longer continuous cut (the individual blows cannot be detected). This technique can be seen more easily on limestone blocks prepared for architectural purposes. A chisel, on the other hand, may be responsible for the smaller scars on the base that represent the chipping of flakes with each blow.

#### Discussion

The relatively incomplete state of the base on each serves a practical purpose too. Though the weight of such objects would have surely been sufficient by itself to ensure their stability, a rough underside would further inhibit any tendency to slide or move about.

With the basic form achieved for both, attention switched to the upper surface or top. The main features here are the large cup-sinkings, which are approximately centrally located. It is a little odd to find that in both cases the large hollow(s) are not positioned accurately on the mid axis: kernos 2 has its singleton placed closer to one end, while the row of five on kernos 1 is set more to one side. The effects of these "miscalculations" are more visible in the latter case because insufficient space remains for the smaller cup-sinkings on one side. They became cramped and disordered in their positioning.

When it comes to opening the main hollows and cup-sinkings, the detectable marks on both kernoi represent drill-work. It is possible that some initial

work was carried out by percussion (directly with a hammerstone or with a punch); an intriguing hint of this can be detected in the three smallest surviving cup-sinkings on kernos 2. Their appearance is rather too irregular to have been the result of rotary abrasion. If correctly interpreted, this observation would leave open the chance that all were so initiated, being only finished by the drill.

The larger basins are perhaps formed by a more complex procedure: the singleton of kernos 2 carries in its base what looks like four or five scars from a drill (some 1.7 cm across). These are very muted; even so, their presence is consistent with the Minoan habit of honeycombing by drill a solid area of some size that needs to be removed. After a series of drillings was made, the weakened material was knocked out piecemeal by blows from a hammer—the force of the blow likely directed by a punch. The final regulation of the resultant profile was certainly achieved by a rotary process in kernos 1, where such marks are preserved to varying degrees on their interior.

The cup-sinkings vary in their profiles—this is due in part to the different nature of the stones. The softer limestone of kernos 2 abraded more readily, and thus it could be argued that the top of each sinking was subject to more wear in production, and it was so expanded. An alternative scenario would employ two drills of different dimensions;

certainly drills of two sizes (0.6 and 1.7 cm across) were used. Rotary abrasion marks are to be seen on occasion. The weakness of this sort of limestone is further revealed by the manner in which the stresses put on it by the drilling processes have caused pieces of it to fracture away, contributing to its irregular top surface. With kernos 1, however, it is clear that a greater range of drills were employed. Larger in diameter (up to 2.5 cm), the profiles they left behind might argue for two stages of drilling (leading to a slightly stepped profile) and for drills with heads of different shapes. It is not clear if said drills were hollow or had solid bites. Some traces of irregularity at the base of the cup-sinkings argue that pieces have been knocked out-something that is associated with a hollow drill only. Such unevenness will demand a final regulation of the profile by another drillhead, now of solid form.

Finally, in kernos 2, a small groove delineates the border of the top. Even now it is relatively V-shaped in section. This was achieved by a chisel working from each side, rather than by a gouge (these do not seem to have existed in the metal tool repertoire of the Minoans).

All in all, then, the two kernoi employ very much the same sorts of tools and approaches to the manufacturing processes. Any differences are dictated more by the softer nature of the limestone over the more resistant serpentinite.

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