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EXCAVATIONS ON GERONISOS (1990-1997): FIRST REPORT

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"Excavations on Geronisos (1990-1997): First Report"

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Geronisos Island enjoys the rarefied status of being an "isle beyond an isle", set just 280m. off the shores of western Cyprus, some 18km. north of Pafos (Figs 1-4).[1] It rises dramatically 21.65m. out of the sea, just opposite the headland promontory known as Cape Drepano, an ancient name that refers to the sickle-shaped stretch of coast that curves up towards the point at Lara to the north approaching the Akamas Peninsula. Today the place is known as Agios Georgios-tis-Pegeias after the church of St. George that looks out over the sea and welcomes scores of pilgrims who come for baptisms, weddings and liturgies on special holy days. The site is not a proper settlement but, rather, a place of visitation. Local residents mostly live some 7km. inland in the municipality of Pegeia set higher up in the foothills leading to the plateau at Kathikas. Two churches of St. George receive pilgrims today, a large structure built in 1928 by donations from Cypriots living in Egypt and a very small white-washed chapel nearby, the date of which has not yet been firmly established. Proposed dates range from the Byzantine period to the 19th century.[2] Further up on the acropolis sit three Christian basilicas of the 6th century, excavated during the 1950's by A.H.S. Megaw.[3] Today, the basilica site is being excavated under the direction of Prof. Charalambos Bakirtzis of the University of Thessaloniki and the Greek Ministry of Culture.[4]

Geronisos is the third largest offshore island of Cyprus, just after the two biggest of the Kleides islands situated off the opposite end of Cyprus at the very northeastern tip of the Karpasia panhandle (Fig. 1). The place name is formed through a combination of *hiera*, meaning "Holy" and *nissos* meaning "island. The toponym suggests a sacred character for the island and a good case can be made that Geronisos was known as "Holy" already in antiquity. In listing the small islands of the Eastern Mediterranean, Pliny (*N.H.* 5.129-131) speaks of the four Kleides "off the cape facing Syria" and two islands toward Pafos, one named "Hiera" and the other named "Cepia."

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1. An image immortalized by James Elroy Flecker in his poem, *A Ship, An Isle, A Sickle Moon*, where he writes, "An isle beyond an isle she lay, the pale ship anchored in the bay", *The Collected Poems of James Elroy Flecker* (London 1916). This article is dedicated to James Ottaway, Jr. with gratitude for the extraordinary support that he has provided for the Geronisos Island Expedition over the past 10 years.
2. Work under the direction of Prof. Charalambos Bakirtzis of the University of Thessaloniki and the Greek Ministry of Culture may soon establish a construction date for the small chapel. I thank Professor Bakirtzis for discussing the churches of Agios Georgios with me and for the wonderful cooperation and collegiality that our missions share.
3. A.H.S. Megaw, "Byzantine Architecture and Decoration in Cyprus: Metropolitan or Provincial?", *Dumbarton Oaks Papers* 28 (1974), 59-88; *JHS* 70 (1950), 15; *JHS* 73 (1953), 137; *JHS* 74 (1954), 175; *Archaeological Reports* (1954), 33; *ARDAC* (1949), 16, (1952), 11, 15, (1953), 12, 17, (1954), 14, 16, (1960), 13, (1966), 9, (1969), 10, (1971), 12; *BCH* 95 (1971), 432.
4. Ch. Bakirtzis, "The role of Cyprus in the grain supply of Constaninople in the early Christian period", Proceedings of the International Symposium, 'Cyprus and the Sea', Nicosia, 25-26 September, 1993, ed. V. Karageorghis and D. Michaelides (Nicosia 1995) 247-253; "Description and Metrology of some clay vessels from Agios Georgios, Pegeia", in *The Development of the Cypriot Economy from the Prehistoric period to the present day* (Nicosia 1996), ed. V. Karageorghis and D. Michaelides, 153-161; Early Christian rock-cut tombs at Agios Georgios tis Pegeias", Medieval Cyprus: Papers in Art, Architecture and History in Memory of Doula Mouriki, ed. N.P. Sevayko and C. Moss (Princeton 1999) 35-48; «Αποτελέσματα Ανασκαφών στον Άγιο Γεώργιο Πέγειας» (Akrothrion Drepanon) 1991-95 (Nicosia-2001), 155-170.

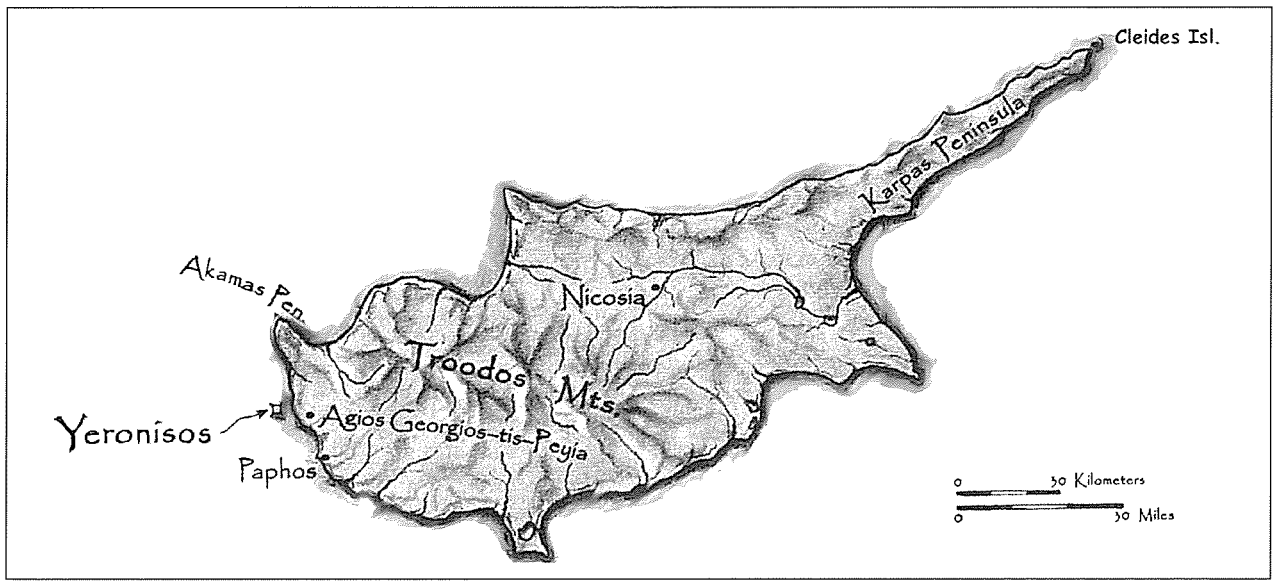

Fig. 1. Cyprus and its offshore islands, Geronisos to the west and the Kleides Islands to the east.

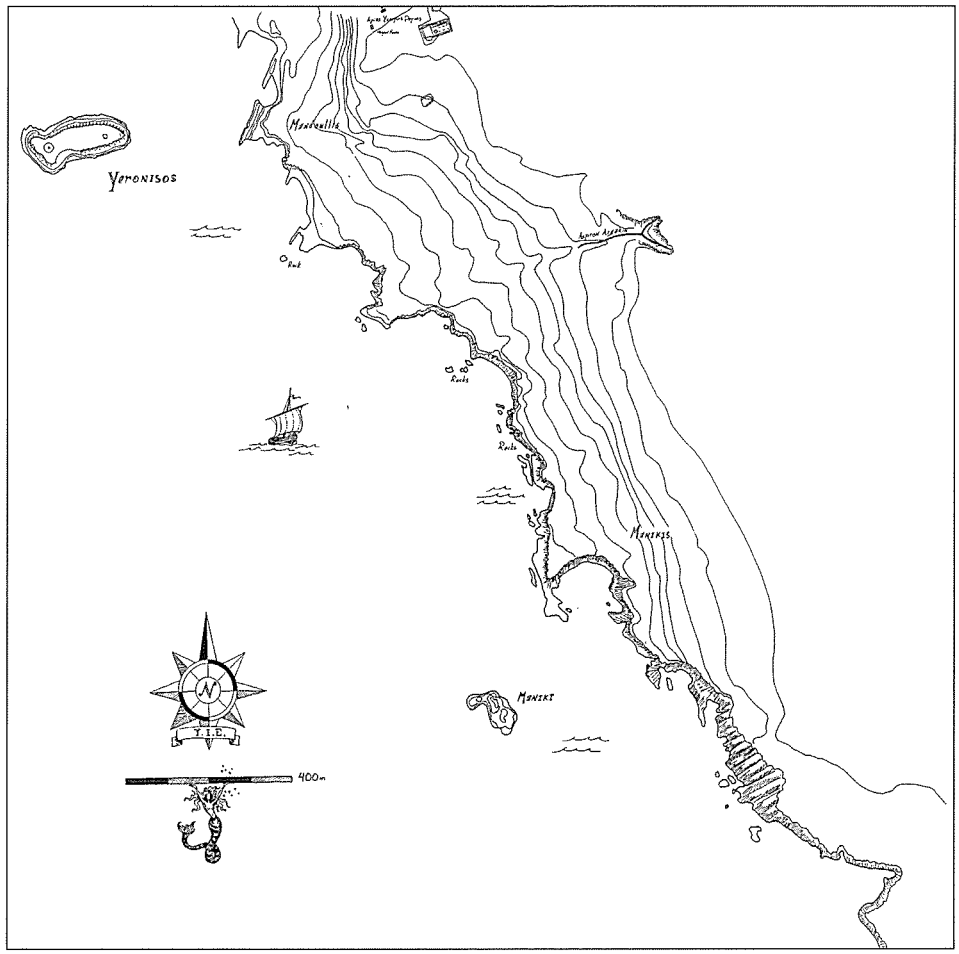

Fig. 2. The west coast of Cyprus from Maniki Harbour to Agios Georgios, with Geronisos to the west. Drawn by George Marshall Peters.

Strabo (*Geographies* 14.6.4) tells us that Demastes of Sigeum (470-420 B.C.) measured the length of Cyprus from a place called "Hierocepis" in the north to the Kleides islands at the south. He cautions, though, that Eratosthenes (280-260 B.C.) corrected Demastes' geography, placing Hierocepis not on the north but to the south of Cyprus. Strabo himself further corrects the two earlier writers, firmly placing Hierocepis neither on the north nor on the south but instead on the *west* of Cyprus, *"where are Pafos and Akamas."* This *"Hierocepis"* is sometimes confused with Geroskipou, the village on the mainland to the *east* of Pafos named for Aphrodite's "Sacred Garden." It is clear, however, that both Strabo and Pliny are discussing offshore islands that provide an axis along which the length of Cyprus can be measured, not mainland sites like Geroskipou. One of the islands that they discuss, located near Pafos and the Akamas, is clearly called "Holy." The persistence of place names over time is well known in Cyprus and the island that the authors call "Holy" is very likely to be one and the same with our present day Geronisos (Fig. 1).

Steep cliffs and strong currents have left Geronisos naturally fortified and have long discouraged exploration and settlement. The American consul Luigi Palma di Cesnola, who cleared so many Cypriot sites of their antiquities during the last century, claims to have visited the Roman tombs at Agios Georgios on the mainland in 1876 but was not tempted over to the island itself.[5] Hogarth, who carefully explored the area in 1888, questioned whether Cesnola actually ever visited Cape Drepano, so different were his findings from those described by the American consul. Hogarth saw extensive remains of what he took to be a Roman town with an amphitheater and large church.[6] He did not cross over to what he calls "St. George Island" but was informed by the Commissioner, Captain Thompson, that the island contained cisterns, just like those found opposite on the mainland.

The first published accounts of visits to the island itself are relatively late. In his 1936 guidebook, Rupert Gunnis describes the Neolithic flints and pottery that he found on the southern side of the island as well as the foundations of a Roman building, possibly a lighthouse, at the western tip of the site.[7] He also recorded the remains of defensive walls, a cistern, a millstone and other materials that he dated to the Roman period. Its inaccessibility has allowed Geronisos to remain one of the truly virgin sites of Cyprus, with ancient levels preserved undisturbed since Byzantine times.

The first archaeological excavations on the island were those undertaken by Dr Sophocles Hadjisavvas for the Department of Antiquities during a five-week period during the autumn of 1982.[8] At this time, developers wished to build a casino resort hotel on the island and the Department of Antiquities stepped in to establish Geronisos' status as a significant cultural monument of Cyprus. Hadjisavvas' trial excavations unearthed substantial Hellenistic levels, complete with significant architecture, fine ware pottery, a coin of Cleopatra VII, and Greek *ostraka* datable to the Ptolemaic period, the only ones ever found on Cyprus. This highly significant archaeological material led to the island's expropriation as an important part of Cypriot cultural heritage.

In 1990, New York University was awarded a license to explore and excavate Geronisos Island and its surrounding waters under the direction of the author. To date, one archaeological survey season (1990), two ecological survey seasons (1990, 1992), five excavation seasons (1992-1994, 1996-1997) and four study seasons (1995,

5. L.P. di Cesnola, *Cyprus: Its Ancient Cities, Tombs and Temples* (London 1877), 225.
6. D.G. Hogarth, *Devia Cypria. Notes of an archaeological journey in Cyprus in 1888* (London 1889), 12.
7. R. Gunnis, *Historic Cyprus. A guide to its towns and villages, monasteries and castles* (Nicosia 1936), 380.
8. S. Hadjisavvas, "An Archaeological survey and Trial Excavations on the Small Island 'Geronisos', off the Pafos Coast", in V. Karageorghis, *Report of the Director of Antiquities of Cyprus* (1983), 39-40.

Fig. 3. Aerial view of Geronisos facing east, with coastline at Agios Georgios.

Fig. 4. Aerial view of Geronisos facing south: showing quarry at west end and cistern impluvium at east end.

2000, 2001, 2002) have been completed.[9] Excavation has established three major periods of occupation on the island, separated from one another by long periods of abandonment. Geronisos saw a very robust Early Chalcolithic phase in which visitors were very busy on the island, leaving a large variety of ground stone tools, chipped stone, and pottery.[10] The next and greatest period of occupation is in very late Hellenistic times, after the restoration of Ptolemaic rule during the reign of Cleopatra VII of Egypt (47-30 B.C.) when a sanctuary, probably of Apollo, was

9. See J. B. Connelly, "Yeronisos: Sanctuary of Apollo", *The Explorers Club Journal* 74.1 (1996), 14-18. I thank the Department of Antiquities of Cyprus and its Directors under whom we have been licensed to excavate, Dr Athanasios Papageorghiou, Dr Demos Christou, and especially Dr Sophocles Hadjisavvas who, as first excavator on Geronisos, generously gave us his permission to continue his work. He has unstintingly shared with us his sound advice, insights and assistance as well as full access to his finds from the island.
To the three hundred strong Friends of Geronisos who have financed our work we owe an enormous debt and thank them warmly, particularly James Ottaway, Jr., William J. Murray, Carl S. Forsythe III and the de Coizart Perpetual Charitable Trust, Michael and Judy Steinhardt, William R. Rhodes, Nicholas S. Zoullas, George Lucas, Lloyd Cotsen, Henry Luce III and Leila Hadley Luce, Howland D. Murphy, Savas Tsivicos and the Pan Pafian Association of America, Inc., the Explorers Club, and our honorary chairmen, the Hon. John Brademas and Ambassador and Mrs Andrew Jacovides. I am further indebted to the John D. and Catherine T. MacArthur Foundation for generous support of my work during the years of excavation and study.
I warmly thank the members of the Geronisos Island Expedition team for the professionalism, hard work and dedication that have made these seasons highly productive and most enjoyable. I am particularly indebted to the senior staff members and dear friends who participated in the Geronisos Chronology Seminar on site in 2002: Jolanta Młynarczyk, Roger Bagnall, David Grose and A.I. Wilson. Their insights have greatly enriched this work. I am further indebted to G.R.H. Wright who provided invaluable advice and assistance in the early days of the excavations while we were setting up the grid system on the island. A.H.S. Megaw has shared with us every benefit of his expertise and kind friendship at every stage in our work. The very excellent team that has worked on Geronisos over the years includes *architect* Andrew Wixom; *island ecologist* Peter P. Blanchard III; *conservators* Andreas Georgiades, Brigitte Bourgeois, Raphaelle de Cointet, Sharon Taylor Papadopoulou, Dana Heminway, Wendy Partridge, Marc Walton; *artists* Mariusz Burdajewicz, Julia Burdajewicz and George Marshall Peters; *photographers* Benjamin Fraker, M. Philip Kahl; *numismatist* Anne Destrooper Georgiades; *pottery specialists* Jolanta Młynarczyk, Christine Cummings, Erin Hayes; *lamp study* Jolanta Młynarczyk; *epigraphists* Roger Bagnall, Bonnie Bazemore; *human skeletal analysis* George Maat; *animal bone study* Paul Croft, *shell study* David Reese, *chipped stone and ground stone study* Carole McCartney; *glass study* David Grose; *water supply study* Andrew Wilson; *geomagnetic survey* Glen Dash; *underwater survey* Jonathan Cole, Andrea DeGeorgi; *GIS* Andrea DeGeorgi; *orthophoto mapping*: Michael Savvides; *computing and database* Rebecca Schindler, Marina Thomatos, Lauren Pierson, Scott Lasak; *trench supervisors*: Paul Croft, Simret Dhesi, Benjamin Fraker, Adrienne Gordon, Erin Hayes, Ann Marie Knoblauch, Christine Koutnouyan, Andrew Lacovara, Thomas Milbank, George Marshall Peters, Mark Smith, Marina Thomatos, Rhys Townsend, Brian Shelburne, Pippa Vanderstar; *Trench assistants*: George Anastasian, Norbert Baer, Jr., Brigitte Bourgeois, Benjamin Britton, Per Chilstrom, Max Davies, Adrienne Gordon, Lina Kassianides, George Maat, Ludovich Lustier, Helen Park, Gregory Pepin, Evan Sung, Joseph Termini, Marina Thomatos and Laura Wooley. *Excavators*: Linda Carter, David M. Porter, David Goodall, Alicia M. Grace, Edwin La Mance, Carol Neville, James Ottaway, Jr., Sherie Jacobsen, William R. Rhodes, Kenneth Silver, Clarke Slade, A. Richard Turner, Deborah Warner, John B. Watts III, Susan Young; *study season assistants* Jessica Hornach, Erin Hayes, Johanna Goldfeld, Diana Ng, Ashley Parrish, Lauren Pearson, Marina Thomatos, Tiffany Tsu, Michael Eng, Marissa Macari, Derek Kelly, Emily Talbot, Jean Tsao, Sara Wytrycze, Scott Lasak, Jori Klein, Amy Clark, Nicole Parr, Sabrina Worth, Molly Frame, Danielle Norris, and John Randolph; *foreman* Andreas Michaelides; *registrars* Adrienne Gordon, Sarah Reason, Elizabeth Doering; *boatmen* Andreas Siampis, Lefkos Kapitzis, George Tsefoutis. We also thank the following *consultants* who gave advice on site and on finds: A.H.S. Megaw, Hans Gunter Buchholz, G.R.H. Wright, Stuart Swiny, Jean Francois Salles, John Hayes, Henry Maguire, Timothy Gregory, Andreas Dimitropoulos, Simon Dimitropoulos, George Petrides, Costas Xenophontos, Phryne Hadjichristophi and Sandrine Marquie. I thank Prof. Demetri Michaelides of the University of Cyprus for directing me towards Geronisos in 1989 and for many helpful discussions over the years of excavation and study. We give particular thanks to Athena and Stavros Stavrou and their children, George, Stella and Andreas, who have given us every benefit of the special warmth of Cypriot hospitality throughout our many years of residing at their West End Hotel in Agios Georgios-tis-Pegeias.
We thank New York University for its support of the project, particularly President John Sexton, Dean Richard Foley, Dean Jonathan Lipman, Dean Matthew Santirocco, Prof. Edward Sullivan, Prof. A. Richard Turner, Prof. Norbert Baer and Mr Billy Helton.
10. A Report on the Chalcolithic finds will be published by Carole McCartney and J.B. Connelly in the next *RDAC*.

active (see below). The end of Ptolemaic rule after the battle of Actium in 30 B.C., followed by a devastating earthquake 17 B.C. that toppled the buildings on Geronisos, saw the end of this most vibrant phase of activity on the island. It is not until the 6th century A.D. that a small group of individuals attempted at least part-time residence on the island, followed by similar activity during the 13th century. The island was never a very easy place to live, and it took determined visitors from three of the most vigorous periods in Cypriot history, the Chalcolithic, the Hellenistic, and the Byzantine, to brave the challenge of getting out to Geronisos and being productive there. It is likely that the site mostly saw seasonal visitation and occupation.

A summary of the results of this work is presented here. Further preliminary reports will be published over the next several volumes of the *Report of the Department of Antiquities of Cyprus*. Part One here presents here a description of the geological, ecological, archaeological and geomagnetic surveys that have been undertaken on Geronisos, together with the results of our excavations on the western side of the site where a Hellenistic sanctuary has been uncovered. Part Two will present the domestic complex and area for food preparation and consumption uncovered in the Central South Section of the Island. The third report will present discoveries at the north and east ends of the island. The present article is accompanied in this volume by separately published but complementary studies of the water supply system on the island and the Geronisos oil lamps and their stratigraphic contexts.[11] Reports on the Hellenistic glass and the Hellenistic ceramics of Geronisos will follow in future volumes of the *Report of the Department of Antiquities, Cyprus*.[12]

Geological, Ecological, Archaeological and Geomagnettic Survey

Geronisos Island has the benefit of a full geological and geotechnical study completed by the Geological Survey Department in 1981. Drs. George Petrides and M. Haralambous undertook this work at the time that developers were concerned about the island's ability to support new construction.[13] The geology of the island is dominated by two primary formations: a hard, calcarenite level of Pleistocene marine terraces at top, roughly 2.5 to 9m. in thickness, capping a soft, marl core below (Fig. 5).[14] The calcarenite horizon is the younger of the two geological formations and is made up mostly of shell fragments and microfossils cemented by the agent $CaCO_3$. At the surface of the island, secondary $CaCO_3$ brought by capillary action contributes to development of a thin hard layer of secondary limestone known locally as *kafkalla*.

The underlying marl, greenish grey when fresh and ranging from hard to very stiff, is a fissured, silty clay sequence that occurs in bands varying in thickness from 20-40cms. This marl is very susceptible to erosion by wave action that has created large overhangs on the island where the calcarenite crust survives and the marl core has been lost. Great boulders of calcarenite, some of them as much as 6m. across, have fallen from the surface of the island, creating an effective wave breaker (Fig. 4). Though the island has lost a significant amount of its original surface area, including stretches of the ancient walls which once skirted the periphery of the site, the naturally formed break water of boulders has considerably reduced further destructive action of wave erosion.

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11. J. B. Connelly and A. I. Wilson, "Hellenistic and Byzantine Cisterns on Geronisos Island", *RDAC* 2002, and J.B. Connelly and J. Młynarczyk, "Terracotta Oil Lamps from Geronisos and their Contexts", *RDAC* 2002.
12. David Grose has prepared the study of the glass finds from Geronisos. J.B. Connelly and J. Młynarczyk will present a summary of the Hellenistic ceramics and their contexts.
13. G. Petrides and M. Haralambous, *Geronisos Island Geological Geotechnical Report*, Ministry of Agriculture and Natural Resources, Geological Survey Department (Nicosia 1981).
14. This section is taken from Petrides and Haralambous (1981) where it is designated as Section C-C'.

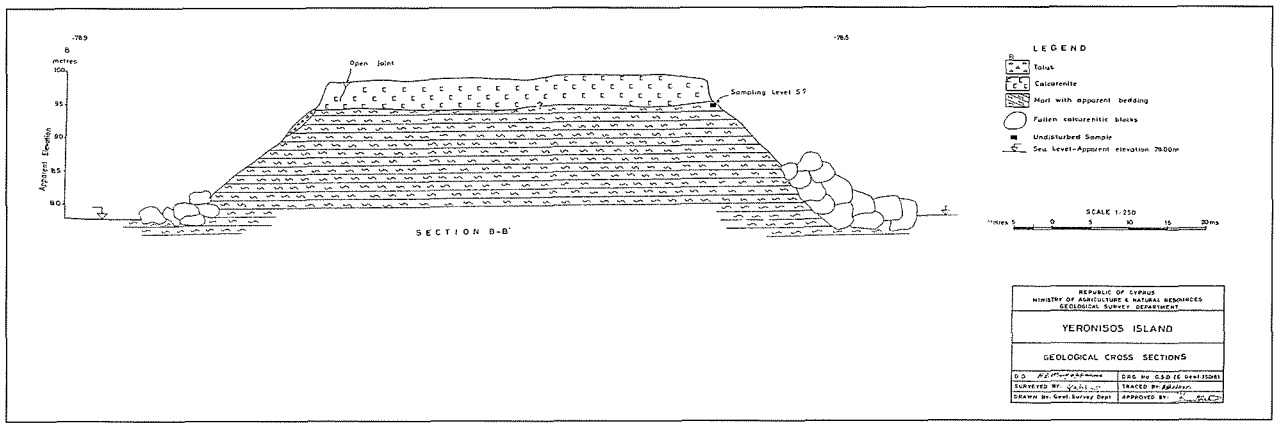

Fig. 5. Geological section across eastern end of Geronisos, showing calcarenite crust and marl core. Taken from G. Petrides and M. Haralambous, *Yeronisos Island Geological Geotechnical Report*, Ministry of Agriculture and Natural Resources, Geological Survey Department (Nicosia 1981).

Uninhabited since the Byzantine period, Geronisos remains an unspoiled natural setting, offering one of the last naturally protected nesting sites for birds south of the Akamas Peninsula. From the start, the project has explored methods by which archaeological and ecological investigation could be integrated with a view to limit any negative impact excavation might have on the natural environment. Toward this end, ecological surveys were undertaken in June, 1990 and March, 1992 by Peter P. Blanchard III of the Nature Conservancy of Mt. Desert Island, Maine and the Trust for Public Land, New York City. Mr Blanchard surveyed flora and avian fauna, undertook bird counts, collected, recorded and photographed plant samples and prepared an ecological map of the site. Plant specimens were taken to the herbaria at the Center for Agricultural Research, Nicosia, for identification. Dr Andreas Dimitropoulos, Director of the Department of Fisheries, kindly shared with Mr Blanchard his file on the flora of Geronisos which he has compiled over many years of visits to the island. Mr Blanchard then flew specimens from Geronisos to the Kew Gardens in London, where Mr Desmond Meikle, world authority on the flora of Cyprus, joined him in identifying the Geronisos samples.[15]

Mr Blanchard's distribution map of the flora of Geronisos shows that some 95% of the Geronisos flora consists of species commonly encountered on the mainland (Fig. 6), easily introduced to the island by water or wind borne seeds or seeds carried on or in the digestive tracts of birds. Wild oats are among the dominant grasses, while *Suaeda fruticosa*, locally known as *"shenia"*, and mastic tree are the dominant shrubs. Plants include wild leek, Naples garlic, wild asparagus and broomrape. Among the dominant wild flowers are the field marigold, corn marigold, friar's cowl, soft storksbill, Medick, poppy, Persian cyclamen, scarlet pimpernel and Alexander. Two species which are quite rare in Cyprus are found on Geronisos: *Cistanche phelypaea,* a parasite of *Suaeda fruticosa* appears as a leafless flowering vine and *Umbilicus horizontalis*, as a low growing plant on rock surfaces. The three nesting bird species on Geronisos are the herring gull, which nests on the level and open ground atop the island, and the jackdaw and the rock dove both of which prefer to nest on the sloping sides of the island in rock crevices. Swifts can also be seen circling the island.[16]

Mr Blanchard developed a strategy for curtailing disturbance of wildlife and promoting an

15. D. Meikle, *The Flora of Cyprus* Vol.1, Royal Botanic Gardens, Kew (London 1977) and Vol. 2 (London 1985).
16. This information is taken from Peter Blanchard's report on the flora and avian fauna of Geronisos Island. It will appear in full in a future volume of the *RDAC*.

atmosphere of "cohabitation" for the archaeological team and the resident bird population. This includes the scheduling of excavation between nesting seasons, the wearing of clothing in earth tones and the camouflaging of the temporary shelter, equipment sheds and ascent. All trenches are back-filled following excavation to allow for regeneration of plants and maintenance of natural nesting cover. We have also followed guidelines for a slow, sequential progression of excavation seasons, occurring over a period of summers separated by non-invasive study seasons, utilizing only small dig teams.

During the 1990 surface survey season, geographical and general contour maps were obtained from the Geological Survey Department and the Department of Land Surveys which also prepared a new aerial contour map of Geronisos Island at 1:250.[17] In 1992, the Cyprus Land Survey Office of Pafos renewed the benchmark on the island, a brass plate set in concrete, giving an accurate and reliable reference point which provides a precise elevation above sea level (21.65m.) as well as exact latitudinal and longitudinal coordinates. This point was determined off of a Level 6 Geodetic Survey point set on the mainland acropolis of Agios Georgios in 1923.[18] Architect Andrew Wixom then made a complete survey of the island with an electronic distance metre and prepared a new state plan of structures exposed prior to the start of our excavations in 1992. He set three datum points, iron reinforcement rods set in cement and cased in PCV tubing, along a true North-South, East-West grid of 5 × 5 metre squares. This grid stretches over the entire site and extends across the channel to the mainland, allowing future underwater survey teams to utilize the same grid as the land operation. To this plan have been added structures and features unearthed by the New York University campaigns from 1992 onwards (Fig. 7).

In 1990, a systematic surface reconnaissance was undertaken, in which team members walked the entire length of the island in order to identify the distribution of artifacts. Field walkers were spaced roughly 10m. apart. Material recovered from the surface was plotted on distribution maps. Not surprisingly, pottery was found in great density near the open trenches and dumps left by the 1982 Department of Antiquities excavations. It was found in only moderate to infrequent levels atop areas that had not been excavated previously. A number of architectural members, excavated in 1982 and left on the island were inventoried and removed from Geronisos for safe keeping in the storerooms on the mainland (Fig. 10). At the start of each season, we continue to conduct further surface surveys, again through pedestrian walkovers by team members spaced about 10m. apart. Surveys include the recording of both ecological and archaeological material and enable us to monitor developments in the flora and fauna of Geronisos as well as movement of artifacts through percolation or other disturbances.

During the 2000 season, a geophysical survey was conducted over a two-week period under the supervision of Mr Glen Dash.[19] The instrument used was a Geoscan Research FM 36 magnetic gradiometre. Geronisos shows a minimum of modern metal in the soil and reasonably good contrast between ancient buried structures and the surrounding earth. This allows for good mapping of ancient remains that are otherwise invisible from the surface. While nearly the entire island was mapped magnetically, it was the central area of Geronisos that gave the most promising results. Here, several anomalies consistent with the remains of buildings were observed. Such anomalies covered the length of the island from north to south along a line approximately 35m. to the east of a line between Station Points

17. We thank Mr Lucas Telemachos for preparing this map.
18. The Land Registration and Survey Department description card for triangulation of the point places it in the field of Georgios Karpousis. "Position on a rocky hill above and about 1 1/2 domaes south southwest of Agios Georgios Church. dated 1-3-1923.
19. A full report of the results of the geophysical survey will appear in a future volume of the *RDAC*.

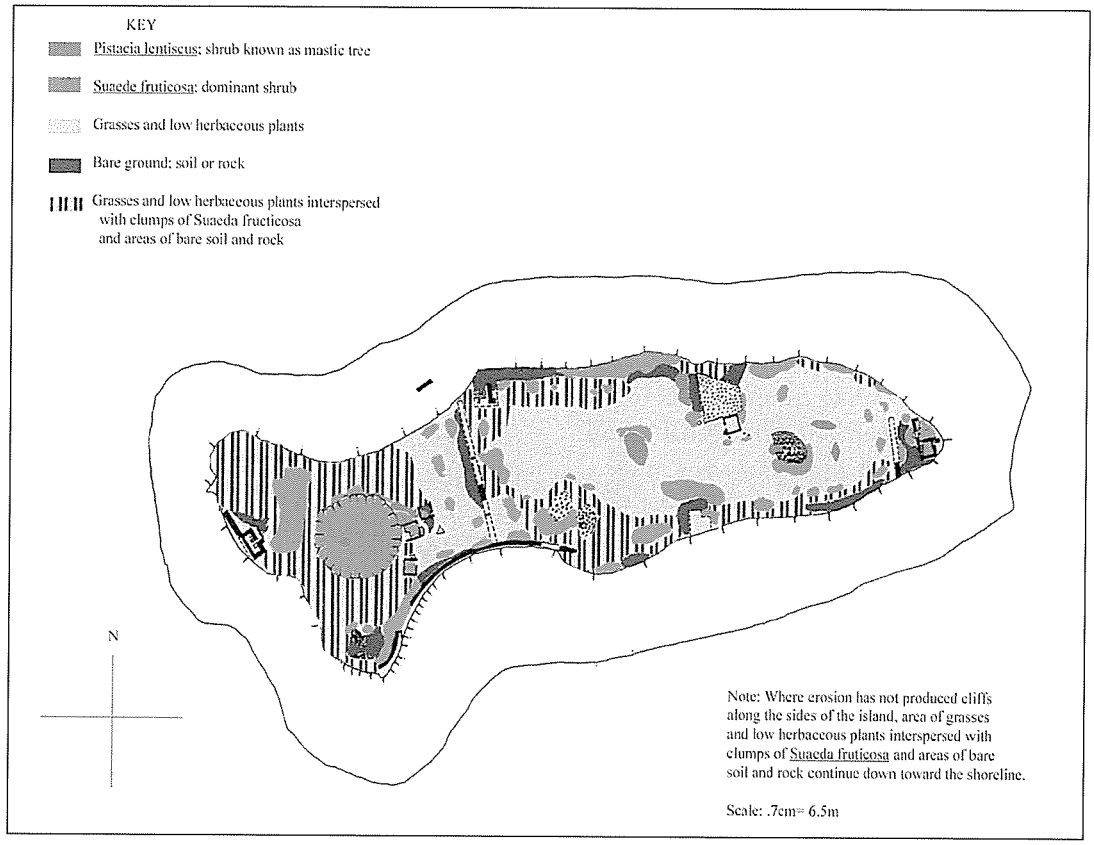

Fig. 6. Ecological map: Flora of Geronisos by Peter P. Blanchard III.

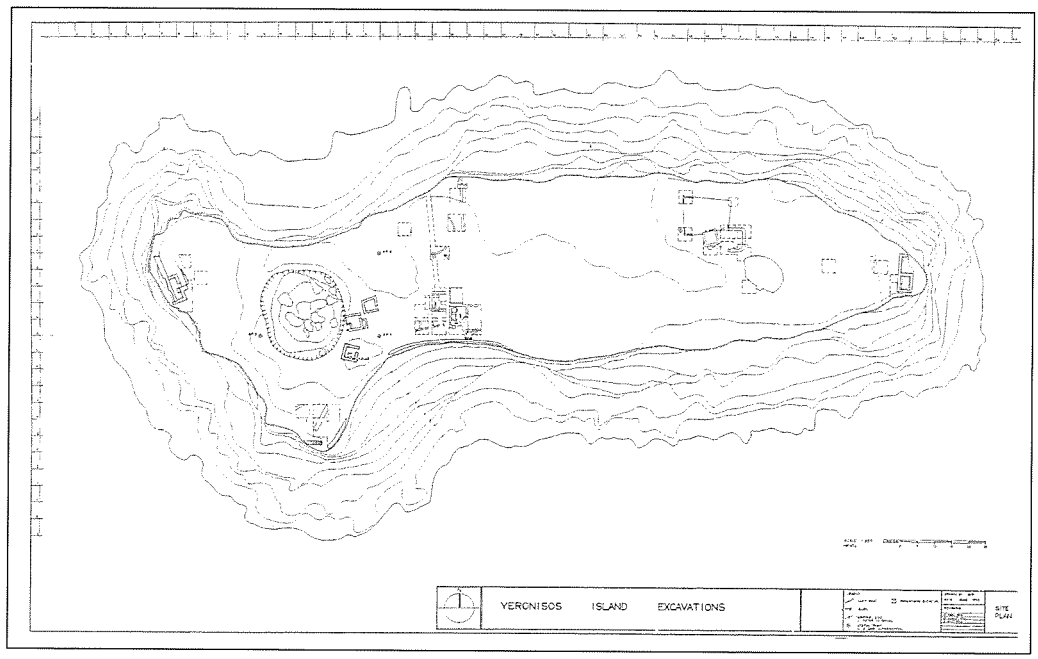

Fig. 7. Architectural state plan of Geronisos by Andrew Wixom.

1 and 2 that were established by Mr Dash. The lines visible in the magnetic printout were aligned with compass points and seem to reflect a north-south and east-west orientation for walls, buildings and roadways. The areas around the cisterns had a magnetic signature consistent with natural erosion. However, a number of anomalies consistent with the remains of buildings were found on both the east and the west ends of Geronisos.

Island excavation presents unique challenges and requires particular methods in approach and procedure. The logistical problems are many. One of the most immediate is that of how to deal with earth removed from trenches during excavation. Earth is a precious commodity on Geronisos where shallow stratigraphy leaves roughly only 20-80cms of fill atop bedrock. If excavated earth is thrown off the island into the sea, a bald surface of bedrock will remain, eliminating all possibilities of maintaining the island's eco-system. If a large spoil heap were to be created, it would be increasingly difficult to move it without heavy lifting equipment. Machinery would have to be brought over by boat and then up a steep 20m. cliff or, alternatively, dropped by helicopter.

The back-filling of all trenches is the only acceptable solution for excavation on Geronisos. It has proven to be highly successful in the maintenance of the island's flora and fauna, indeed, plant life rejuvenates in robust growth after the soil in the back-filled trenches has been "aerated" through sieving. A visit to Geronisos in the springtime shows flowers blooming in 4 × 4m. square beds atop our back-filled grid squares, while the areas of the unexcavated baulks show considerably less growth. Herring gulls, rock doves and jackdaws continue to nest happily on the island. Back-filling has importantly served to preserve and protect the buried rubble walls in the ancient levels, which would never survive if left exposed to the elements. Foundations uncovered during the 1982 excavations and left exposed since have suffered greatly. We have attempted to preserve these walls through the introduction of geo-drains and geo-textiles that help to divert water flow away from the rubble foundations.[20]

The relative inaccessibility of the site, the frequently rough crossing by boat, the difficult landing, and the descent down a 20m. cliff face, have posed a particular problems for our efforts to process our excavated earth through water flotation. Without a freshwater source on the island and faced by the impractical task of pumping seawater, flotation procedures cannot take place on site. In the early days of excavation, we attempted to carry 10% of the earth from all excavated levels off the island for water sieving back on the mainland. Moving such a large quantity of earth down the slopes and transferring it from our landing to a rowboat, and then onto a fishing boat and, eventually, off again, was an ungainly operation. Results of the flotation of earth from Geronisos have been very disappointing, yielding little or no data. These results have not been commensurate with the enormous effort expended to get the earth off the island. Therefore, we have cut back the percentages of earth floated to 5% and have limited the operation to samples taken only from floors and specific deposits that may hold particular significance. We continue to dry sieve 100% of floors and select deposits.

Every sherd excavated on Geronisos is saved and counted, with the view that if a vessel made it out to the island, all of its pieces should be recoverable. Even with this level of care not one complete pot has ever been excavated or mended from fragments retrieved on Geronisos. The very broken up, worn and re-used quality of the pottery found on the island poses particular problems for our understanding of the site.

20. Geotextiles and geodrains provided by the Mirafi Corporation were installed under the supervision of conservator Sharon Taylor Papadopoulou.

ARCHAEOLOGICAL EXCAVATION

The unique challenges of working on Geronisos Island have remained constant from the earliest period of activity in Chalcolithic times, through the Hellenistic and Byzantine periods of occupation, to our own present day of archaeological excavation. These include the difficult crossing to the island by boat, the issues of landing, ascent, and transport of materials and equipment and, finally, the lack of a water source for those who manage to get there. Evidence of two ancient landing places, one on the north, the other on the southern side of the island, both towards its western end, show that, just as in present times, changing currents and prevailing winds required two different approaches with two different ports (Figs 3, 4). During the spring and summer seasons, Geronisos is most easily reached from the south, but during the autumn and winter months, the northern approach is the friendliest. Of course, throughout the year there are days when the wind unexpectedly shifts and requires a change in the direction of approach to ensure safe landing.

Measuring just 270m. in length and 100 to 60m. in width, the small island held particular obstacles for those attempting to build upon it. How could one best exploit the natural resources of Geronisos to support the two major enterprises of construction and water collection? The solution rested with the careful planning of the organization and utilization of space. The interior of the island was exploited for the quarrying of building materials and the sinking of water collection tanks while the periphery of the island was saved for the siting of the buildings themselves (Fig. 7).[21]

The Hellenistic contractors were economically minded and excavated a great quarry at the western end of the island from which they could remove stone as well as clay marl for building. Today, the quarry appears roughly circular in shape and measures some 27.5m. in diameter (Figs 4, 7). Originally, its lines may have been more rectilinear, but collapse of the sides has since made for a great circular cavity that plunges deep below the island's surface. The quarry provided quantities of calcarenite stone suitable for rubble wall foundations. Material for the superstructures of the buildings was imported from the mainland. Fine finished ashlar blocks that show a full variety of mason's marks, some 27 of them recorded thus far, attest to careful planning for placement of these stones carried over from the mainland.[22] The grandest buildings on Geronisos were, then, set on local calcarenite rubble foundations, with limestone ashlar superstructures, plastered white to imitate marble and topped with substantial tiled roofs. The humbler structures on the island were made of simple rubble foundations supporting mudbrick or mud pisé walls. They were roofed with cane batten, wood, mud and plaster.

Building materials were at a premium on Geronisos and the difficulties of transporting blocks across the sea and up the steep cliffs forced the ancient engineers to be creative in their problem solving. Whenever possible, bedrock itself was cut and utilized as a foundation for walls, eliminating the need for excessive amounts of quarried calcarenite.[23] The setting of walls was a particular challenge as the depth of the soil above bedrock was always very shallow, as little as 10cm. in some places. The ancient builders could not sink their foundations deep into the earth so they simply scraped the earth down to bedrock, saving the excavated deep red Pleistocene *terra rosa* that is deposited just above the rock surface. This red clay-like material is found re-used as a dry mortar between the calcarenite stones in wall foundations across Geronisos. Sometimes, the irregular surface of

21. J.B. Connelly and A.I. Wilson (2002).
22. Among the mason's marks are 3 *eta gamma* inscriptions, four inscribed *nu*'s, three or four *eta*'s, two *theta*'s, five *iota*'s, one *tau alpha*, and one *eta alpha*.
23. For use of cut down bedrock as wall foundations see R. White and G.R.H. Wright, "The East fort at Apollonia", *Libyan Studies* 29 (1998).

the bedrock itself was graded with a gravel leveling course. Then, a bed of white plaster was laid and the limestone ashlars were set into this strong adhesive footing. The use of plasters on Geronisos, both for the setting of walls and for the decoration of superstructures, is striking. In this, Geronisos looks very directly to Alexandria in Egypt where the exploitation of plaster as a building material was exquisitely developed by Ptolemaic contractors.

Southwest Complex

(H 16, H 17, I 15, I 16, I 17 and cleaning G 16 and G 17)

In 1992 and 1993, work was concentrated at the southwestern section of the island, where collapse of the original cliff side has joined with the natural formation in creating the effect of a sort of small promontory extending to the south (Fig. 7). The cliff face is marked by a severe overhang of calcarenite crust, deeply undercut from below by erosion. At the start of our excavations, a trench dug by the Department of Antiquities in 1982 extended all across the southern edge of the promontory, tracing the entire inner face of a rubble circuit wall (Feature 12) that skirts the eastern edge of the cliff (Fig. 8). This sondage measured roughly 2m. in width all along the eastern edge and broadened at the south to a width of roughly 5m. coming down either side of a second wall (Feature 9) that sits at a slightly lower elevation. This wall is quite different from the first: it is oriented east-west and constructed of fine ashlar blocks set upon a bed of thick white plaster. Limestone architectural members, including three joining pieces of a cornice block, roof tiles and dumped earth were left upon the surface from the 1982 operation (StA. 92.01, Fig. 10). Material retrieved in the earlier excavations includes Eastern Sigillata fine wares and moulded bowls, cooking pots, amphorae fragments, stone offering trays, a mortar, a pestle and two *ostraka*, one with ink and the other with incised inscriptions. On the basis of this material, Hadjisavvas provisionally identified the southwestern complex as a sanctuary.[24]

The challenge that faced us in 1992 was to establish an independent stratigraphic sequence for the area and then to relate it to material found in the 1982 excavations. Two 4 × 4 metre trenches were set near but not intersecting the earlier work. Grid squares I-15, I-16 and were opened at the north with 1m. baulks left on all sides. Squares H-16 and H-17 were opened just to the south, extending directly into the 1982 sondages (Fig. 8).

The 1992 campaign unearthed two additional walls of different widths and orientations, making for a total of four not clearly associated walls within in this relatively small area. A broad foundation of stone rubble construction (Feature 10.1 and 10.2), roughly 1m. in width, runs along a diagonal from southwest to northeast through trench I-16 and H 16. No definite end point or evidence of for a return was found at the south where the wall simply fades out. The terminus of this wall may have been removed during the 1982 excavations. At the northwest corner of trench I-15 a smaller, narrower rubble wall (Feature 11), approximately 0.75m. in width, was found running along a slightly different diagonal axis, oriented again southwest to northeast (Fig. 8).

The number of wall foundations encountered in such a small area is difficult to assess. The fact that no doorways or clear direction of circulation is readily apparent makes matters that much more obscure. The clearest reading of the evidence thus far suggests the following sequence. The substantial foundation of ashlar blocks (Feature 9), set upon a thick bed of strong white plaster, appears to be part of a Ptolemaic wall uncovered along the periphery of Geronisos at several locations. Here we see the desperation of the Hellenistic builders faced with the challenge of setting heavy foundations atop bedrock with virtually no earth fill into which to sink the ashlar blocks. This wall measures 110cm. in width, that

24. S. Hadjisavvas, *Annual Report of the Director of the Department of Antiquities of Cyprus* (Nicosia 1982), 39-40.

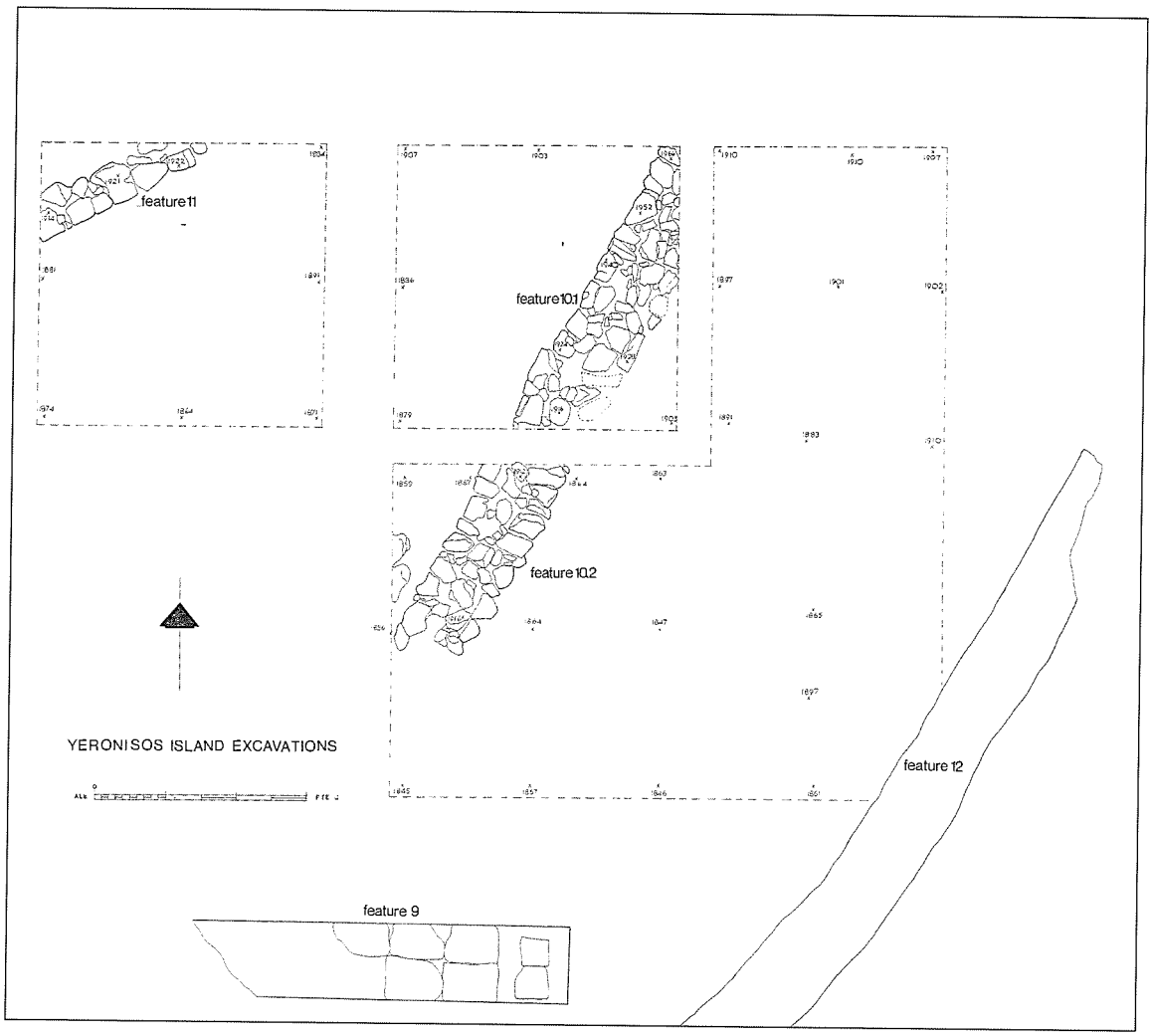

Fig. 8. Southwest Complex (H16, H17, I15, I16, I17 and cleaning G16 and G 17).

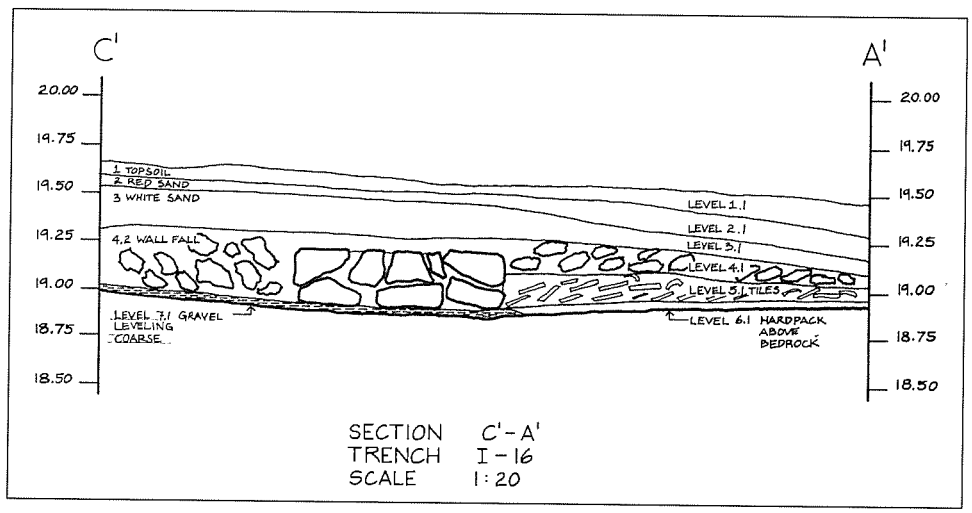

Fig. 9. Southwest Complex, Trench I 16, stratigraphic section C'-A'.

is the length of two Egyptian ells at some 55cm. each. It carries on to the west and breaks off dramatically at the point where the original surface of the island has collapsed into the sea, giving clear indication that the perimeter edges of Geronisos have changed significantly since antiquity.

The diagonal wall (Feature 10) of slightly narrower width appears to be part of this same late Ptolemaic construction phase. The role of Feature 11, the rubble wall to the northwest through I 15 is more difficult to understand. It surely belongs to the Hellenistic period but it is humbler and narrower than wall Features 9 and 10. It may represent a slightly later phase within the same late Hellenistic period. The very scrappy rubble circuit wall encountered at a higher level (Feature 12) is from a much later period of occupation during the 6th century A.D. Indeed, one stone built into this wall is inscribed with a cross.

The great quantity of wall fall and tiles from across this area suggest that the broad foundations of late Ptolemaic date (Features 9 and 10) held walls of considerable weight, perhaps supporting one or more upper stories, and certainly crowned by impressive architectural members, carefully plastered and showing good Hellenistic moulded profiles (Fig. 10). These tiled buildings are unusually substantial for Hellenistic Cyprus and must represent important structures, built through great effort and with more than private resources. The area between Features 10 and 11 was filled with blocks fallen in wall tumble, lying atop a level of smashed roof tiles. Some of the blocks were seen to fall in "domino fashion", clearly tumbling from east to west off the foundations of wall Feature 10. The roof tiles broken up beneath the wall fall are remarkable in their size, number and variety. In I-15, ridge tiles could be seen fallen in a line, telescoped into one another, as if they had slid together in a single action (Fig. 11). Cover tiles, ridge tiles and pan tiles were scattered two to three layers deep (T 92.01 and T.92.03, Figs 12, 13). To facilitate accurate recording, the trench was divided into quadrants, joins between fragments belonging to the same tile were recorded *in situ*, assigned numbers and lifted as units. This enabled us to keep together all fragments that are likely to belong to the same tile. The procedure has greatly helped our efforts to mend the tiles and to establish their original size. Though no single tile has been restored in its entirety from the thousands of fragments recovered, some idea of the original size can be estimated from a few tiles that are nearly complete. One (T 92.01, Fig. 12) shows a preserved length of 0.865m. and an original width of 0.445m. at its narrower end, widening to at least 0.52m. at its broader end, where it is painted with red pigment.[25]

The stratigraphic sequence in the space between Feature 10 and Feature 11 is straightforward (Fig. 9). Topsoil (level 1) rests upon a red sandy level (level 2), which rests upon a white sandy level (level 3), above the wall fall (level 4), and tiles (level 5), over the hard-packed earth outside the building (level 6.1) and a gravel leveling course (7.1) within and beneath the building. The hard-packed earth above the *terra rosa* on the exterior was nearly void of pottery and other finds, giving the impression of an open *plateia* or courtyard between the two buildings. A few very tiny fragments of Cypriot Sigillata and Eastern Sigillata fabrics were recovered here along with a fragment of a glass bowl (G.92.01).

The lack of finds encountered in this area stands in stark contrast to the levels to the east of the wall (Feature 10), which are characterized by a similar wall tumble, but with no tiles whatsoever and great quantities of pottery, worked stone, metal, glass, animal bones and ash. It seems that the tiled roof slid off the building to the west and into the *plateia*. To the east of the wall (Feature 10), the ceiling of the building collapsed into the interior room and covered a host of objects set upon its floor. The violence of the destruction

25. The tiles were examined by Dr Phryni Hadjicosti during the 1995 season and we thank her for her helpful comments.

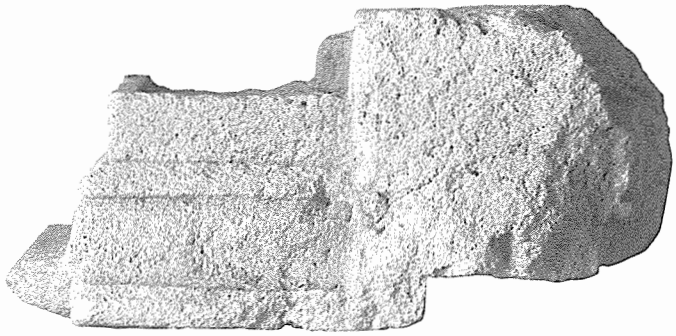

Fig. 10. Cornice block, StA.92.01.

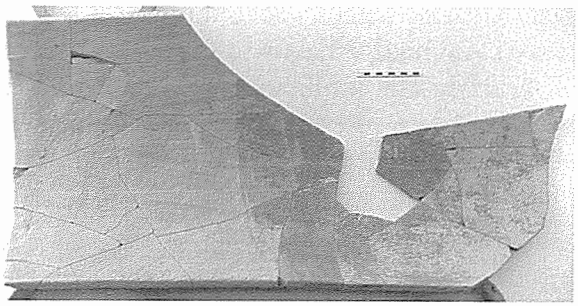

Fig. 12. Roof tile T.92.01

Fig. 11. Level of broken roof tiles, I 15, Southwest Complex.

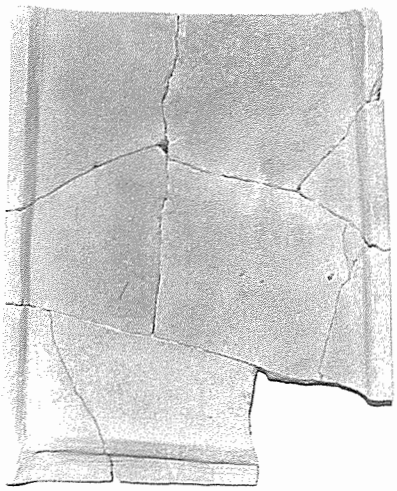

Fig. 13. Roof tile, T.92.03.

Fig. 15. Rhodian stamped amphora handle, SAH 93.01.

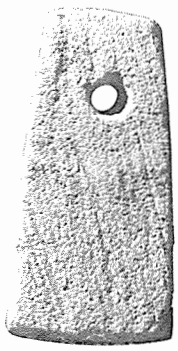

Fig. 14. Amulet, A.92.02

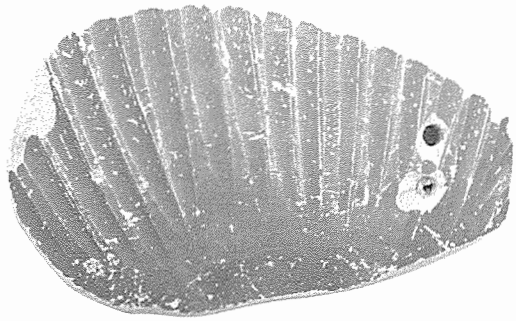

Fig. 17. Spoon shaped from Eastern Sigillata A bowl fragment, P.93.17.

Fig. 16. Ostrakon, O.93.03.

broke through the floor which is preserved only in a very few places above the gravel leveling course. Among the debris, a fragment of plaster (Pl.93.01) preserves the impression of cane batten and gives evidence for a ceiling construction of canes plastered to a wooden roof.

The space to the east of the wall (Feature 10) held a large number of finds, for the most part, within an elevation range of 18.70-19.10 meters above sea level. This material included bronze needles (MB.92.01, MB.93.03, MB.93.09), a fragment of a bronze nail (MB.93.10), an iron nail (MI.93.02), and an iron knife (MI.93.03, Fig. 22). A great quantity of stone objects was retrieved including stoppers (St.93.35, 37, 46), a mortar (St.93.45), stone bowls and basins (St.93.30, 33, 47, 57, 67, 71, 74), rims (St.93.49, 51, 62), a spout (St.93.53), a disk (St.93.02) and an anchor (St.93.39).

A fragment of a worked but unfinished small stone object (A.93.05) resembling a loomweight in size and shape was recovered here. It is one in a series of 11 such objects that have been found to date on Geronisos, the rest of which were found the rooms of the Central South Complex (A.92.02, Fig. 14).[26] Some of these objects are pyramidal, others are rectangular, in shape. Most of them are pierced for suspension and were, apparently, meant to be worn. They carry incised patterns on the bottom surface; several of them are decorated on the sides as well. The object found in the Southwest Complex is undecorated and unfinished and may argue for the production of these objects on Geronisos itself. Indeed, the series is unique to the island. The example illustrated here (Fig. 14) was found in grid square N 23 in the Central South Complex and shows the standard shape for these pieces. More will be said of this important series later, but for now it should be recognized that these objects strongly resemble amulets that are depicted in Cypriot limestone votive statuary. Here, they can be seen worn by so-called "temple boys", suspended from strings worn diagonally across the chest, along with other talismans including signet rings, pierced disks, spindles, small masks.[27] The discovery of these objects on Geronisos provides the most direct evidence of a cultic function for the island.

A few fragments of cast glass bowls were found (G.93.13, 14, 17, 24) in the Southwest Complex. The lower half of a lamp (L.93.06) in a regional color coated ware was unearthed which, apparently, belonged to a *surmoulage* copy of an Egyptian lamp of the type Alexandrian Type M or M-Prime.[28] It can be dated 75-25 B.C. It shows the remains of the letter *alpha* impressed on its base. The nozzle of a second local lamp (L.93.09) was recovered here as well and can be dated to the first century B.C. This chronological range is consistent with other datable finds from the level including a bronze coin (C.93.04) of Cleopatra VII and Ptolemy XVI Caesar (47-44 B.C.) struck in Pafos. One Rhodian stamped amphora handle was found here, bearing the stamp of *Aristombrotidas* which can be dated to the late 2nd or early 1st century B.C. (SAH 93.01, Fig. 15).[29] Two ceramic finds bear inscriptions. A base from a bowl made of Eastern Sigillata A fabric (O.93.03, Fig.16) shows an inscribed grafitto reading: *alpha* and *omicron*.[30] The underside of a second bowl (O.93.05) shows an incised monogram reading vertically: *tau, alpha, iota.*

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26. Connelly and Młynarczyk (2002) page Fig.
27. A. Reyes, *The Stamp-Seals of Ancient Cyprus* (Oxford 2001), 33. C. Beer, *Temple-Boys: A Study of Cypriote Votive Sculpture*, Part 1. Catalogue, *SIMA* 113 (Jonsered 1994), cat no. 194, plate 176, New York, Metropolitan Museum of Art, 74.51.2754, from Kourion; cat. No. 175, plate 177, London, British Museum C 164, "Sanctuary of Reshef-Mikal-Apollo-Amyklos" excavated by R. Hamilton Lang in 1868; Appendix B, no. 2, pl. 201, Istanbul Archaeological Museums 3322, unknown provenience; Appendix B, no. 4, plate 202, Paris, Musée du Louvre, AM 3004, Golgoi.
28. Młynarczyk (1997) figs 131-46. Connelly and Młynarczyk (2002).
29. Z. Sztetyllo, *Nea Pafos I, Les Timbres Ceramiques, 1965-1973* (Warsaw 1976), 61, no. 175, cites 23 other stamps known of this type, four from Delos.
30. Second half of first century B.C., Hayes type 19B.

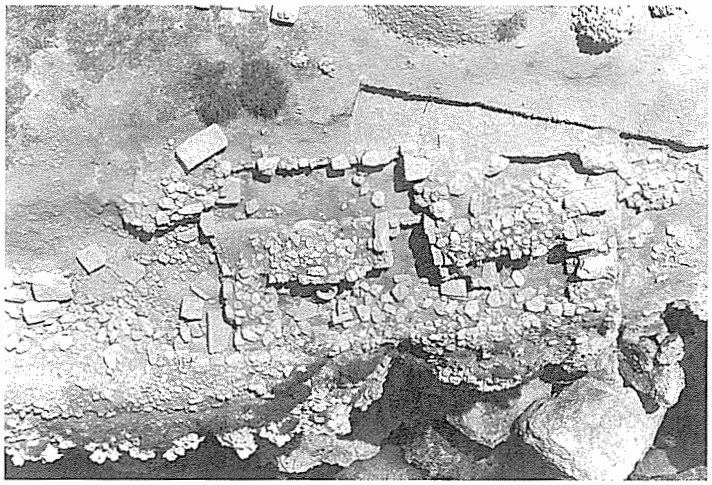

Fig. 18. Aerial view of West Building, facing east. P 8 and O 8.

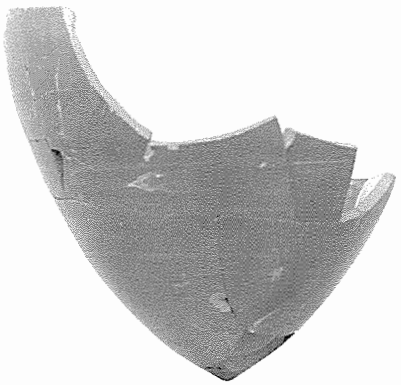

Fig. 19. Cypriot Sigillata mastos cup, P.93.11.

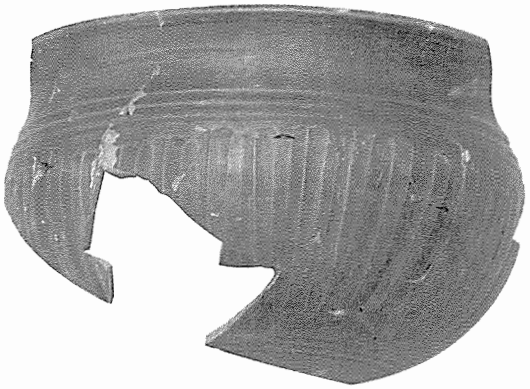

Fig. 20. Cypriot Sigillata bowl, P.94.01.

Fig. 21. Amulet with anchor motif, A.94.02.

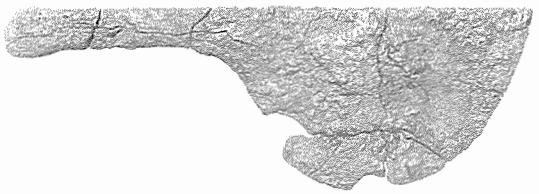

Fig. 22. Iron knife MI.93.03.

Fig. 23. Egg and dart moulding, limestone, StA.94.02.

Fig. 24. Lion's head water spout, limestone, StA.94.01.

Just over 3500 sherds were recovered from the Southwest Complex.[31] A count of rim and base fragments allows for a rough estimate of some 78 vessels. Fine ware or table ware comprised 63% of the total ceramic material, while cooking ware made up 22% and storage/coarse ware accounted for 12% of the pottery fragments. Very few sherds of Chalcolithic date were recovered and make up just 0.2% of the fragments collected from the area. This stands in stark contrast to the quantities of Chalcolithic ceramics that were recovered in the central and eastern sections of the island where the distribution of material from the prehistoric period is moderate to dense.

Fine slipped bowls, in a variety of fabrics, are the dominant shape recovered from the Southwest Complex. At least 42 vessels, including footed and hemispherical bowls as well as bowls with incurved rims were identified. The wares include Cypriot Sigillata, Eastern Sigillata A, regional color coated ware and the local pink powdery ware.[32] Eight bowls are of Eastern Sigillata A fabric, including one footed bowl (P.93.15) that was probably re-used as a strainer, one hemispherical bowl (P.93.09), a shape that seems to have been a special favorite at Geronisos, and several relief bowls (P.93.45) some of which show acanthus leaf patterns (P.93.16). Ten bowls of Cypriot Sigillata fabric (P.93.31, 33, 34, 36+37) have been retrieved. Two bowl fragments, including one of Eastern Sigillata A fabric, have been reshaped and pierced with a pair of holes, apparently for reuse as spoons onto which wooden handles would have been lashed with leather ties (P.93.17, Fig. 17, and P.93.18). One echinus bowl (P.93.14) is of regional color coated ware. This repertory of vessels suggests a diet particularly rich in liquid food. The presence of pottery fragments re-used as spoons and the reworking of bowls and bases of closed shapes to form strainers (through piercing with holes) indicate a predominance of food in liquid or strained form.

The most extraordinary vessel recovered here is the very fine Cypriot Sigillata mastos cup (P.93.11, Fig. 19), mended from some 19 joining fragments to preserve a continuous profile, the only extant example for the type known at present. The shape's prototype previously relied upon an artificial restoration of a profile based on a non-joining rim and base fragment from the House of Dionysos at Nea Pafos, dated by Hayes to the first century B.C.[33] The thin walls of the cup rise to a delicately beveled rim and make for a most elegant shape that fits neatly in the hand. Three mendholes pierce through the wall of the cup and attest to the value placed upon it. Once broken, it was not discarded but painstakingly put back together.

Other open shapes include eight plates or shallow bowls, three of which are of Eastern Sigillata A fabric. All in all, the plates are relatively few. Ten closed shapes can be identified from among the fine wares and these are most probably all jugs, including at least one example in Cypriot Sigillata fabric. Three of these jugs can be more narrowly identified as lagynoi. Fragments from at least two fine-ware amphoriskoi were also recovered here, duplicates of a type found further to the east in the Central South Complex. A relatively large number of cooking pots was found here. These are made of coarse friable fabrics ranging in color from red-orange and red-brown to brown, and include 16 globular pots and three lids. All rim profiles belong to the same type, arguing that they were made during one relatively short period of time. An interesting feature is the presence of some very small cooking pots (rim diameter *ca.* 10-11cm.). Casseroles are virtually absent. Diagnostic fragments of transport amphorae are relativley few; they

31. Christine Cummings studied the pottery from this area and I present here the preliminary results of her work during the 1992-1995 seasons. This material is now under study by Jolanta Młynarczyk and the vessel count may change after final identification is complete.
32. As identified by Jolanta Młynarczyk.
33. Base fragment, OD 5254, rim fragment uncatalogued, J.W. Hayes, *Pafos* III (1991), 41, fig. 18.15 (1-2); "Sigillata Cipriota", in *EAA, Atlante delle forme ceramiche* II (Rome 1985), 83, tav. XIX, 6.

include Coan-type amphorae and at leats two centers, and Italian Dressel 1 A and 1 B.[34] Additionally, there were examples of late Hellenistic glass bowls.

The Southwest Complex poses enormous difficulties in interpretation. The very worn condition of the pottery and the fact that so few complete profiles could be mended suggest that this material is greatly disturbed or even re-deposited here through dumping. In some cases, joining and associated fragments from a single vessel crossed all levels within a trench or even two trenches many metres apart. Sherds for one jug were recovered from H 16 levels 1 through 6, representing topsoil through the level just above bedrock. Joins for a Cypriot Sigillata bowl were made from fragments spread between trenches I 15 and I 17, on opposite sides of the wall (Feature 10.1). The violence of the final destruction and the possibility of subsequent scavenging of the site may account for this extraordinary movement of material. The manner in which the tiles slid as a unit off the roof of the structure and the way in which the wall blocks tumbled down in a "domino" arrangement argue for a sudden, single event destruction. This is best associated with an earthquake and the likeliest candidate would be the earthquake that struck Pafos in 17 B.C. This event is well recorded in the ancient sources, particularly by Dio Cassius 54.23.7 (3rd cent. A.D.) and Eusebius, *Hieron. Chronicon* 166c.[35]

It is difficult to establish with certainty the function of the Southwest Complex. The architecture certainly speaks for an important structure. Its placement just to the west of the southern entryway to the site marks its important role as the first building to visitors upon their entry up on the island. It could represent part of a propylon or some sort of entrance gateway for the sanctuary. The small stone offering trays, one with round holes and the other with square holes, found in the 1982 excavations along with inscribed Ptolemaic *ostraka,* are consistent with Hadjisavvas' reading of this location as that of a sanctuary or place of dedication. A recent reading of an incised ostrakon found by Hadjisavvas shows that the text presents a list of male names.[36] The large quantity of fine wares for which the dominant shape is the drinking cup, together with fragments of cast glass bowls, argues for a rather high standard for dining and drinking on Geronisos, most probably within a ritual context.[37]

The New York University excavations have also recovered material that is somewhat humbler than the finds of the 1982 investigation. This includes Coarse and Cooking ware in addition to fine ware pottery, as well as the stone basins, bowls, mortar, pestle, bronze needles and an iron knife (MI.93.03, Fig. 22) of a shape that has been associated with skinning. In addition, numerous faunal remains, including sheep, goat, pig, cow and fish, as well as 26 animal teeth have been recovered from across the area. Many of these show evidence of burning.[38] This material could be associated with the remains of sacrificial victims from an altar or refuse from ritual dining activities. Equally, it could simply indicate a domestic or service area for food preparation. Whether the remains from a sacred altar, refuse from a ritual banquet, the garbage from a kitchen or domestic quarter, or all three, the material recovered from the Southwest Complex attests to intense eating, drinking and food preparation solidly placed within the third quarter of the first century B.C.

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34. I thank Jolanta Młynarczyk for her study of this material. Her report on the Hellenistic ceramics of Geronisos will appear, along with J.B. Connelly's presentation of the contexts, in a future volume of the *RDAC*.
35. See I. Guidoboni *et al.*, *Catalogue of ancient earthquakes in the Mediterranean area up to the 10th Century*, Insituto Nazionale di Geofisica (Rome 1994), 177-178. I thank Dr Steven Soter of the American Museum of Natural History, New York City, for his kind help in researching this earthquake.
36. Geronisos 82/16. I thank Roger Bagnall for reading this *ostrakon* as well as all other inscribed sherds from Geronisos and for his very helpful insights.
37. Similar assemblages have been found at other Levantine sites of late Hellenistic date, including Tel Anafa and Jerusalem (City of David excavations) along with Delos in Greece.
38. This information is taken from Dr Paul Croft's report on animal bones from Geronisos.

West Building
O 8, P 8, Q 9, R 8

High on the cliffs overlooking the westernmost extremity of Geronisos are the poorly preserved remains of what was once the island's most richly decorated building. Today they consist of a mere 9.5m. stretch of large ashlars running on a roughly north/south axis with returns at the corners stretching to the west for some 5m. out toward the cliff face (Figs 18, 25). Here, the walls and the bedrock beneath them have completelycollapsed into the sea together with the entire western end of the island. Around 10m., maybe more, of the island has been lost on this western end, probably due to the well known series of earthquakes that occurred during the 4th century A.D. We can be certain that the west end had fallen away already by the early Byzantine period when a scrappy circuit wall, marked with a cross, was erected along the periphery of the cliff to provide a safe barrier. It resembles the early Byzantine wall encountered on the edge of the Southwest Complex (Feature 12, Fig. 8). The stretch of this late wall on the western cliff of Geronisos runs roughly parallel to the fine Ptolemaic ashlar foundations, and, with it forms a long narrow room with entryway at centre. Designated as West Building, this structure was investigated by Hadjisavvas in 1982. Within the building he found evidence for food preparation, including an old Hellenistic altar or cippus carved out for re-use as a mortar, along with a large basin lined with water-proofed cement, a stone bowl, an iron knife, many animal bones and pottery fragments. On the basis of this material, Hadjisavvas provisionally identified this structure as a kitchen. During which period it may have been re-occupied as a kitchen is less clear. Some fragments of what could be amphorae of early Imperial date may point to a Roman date for re-use, though it seems more likely that the early Byzantine builders of the scrappy circuit wall were also responsible for the re-use of the space as a kitchen.

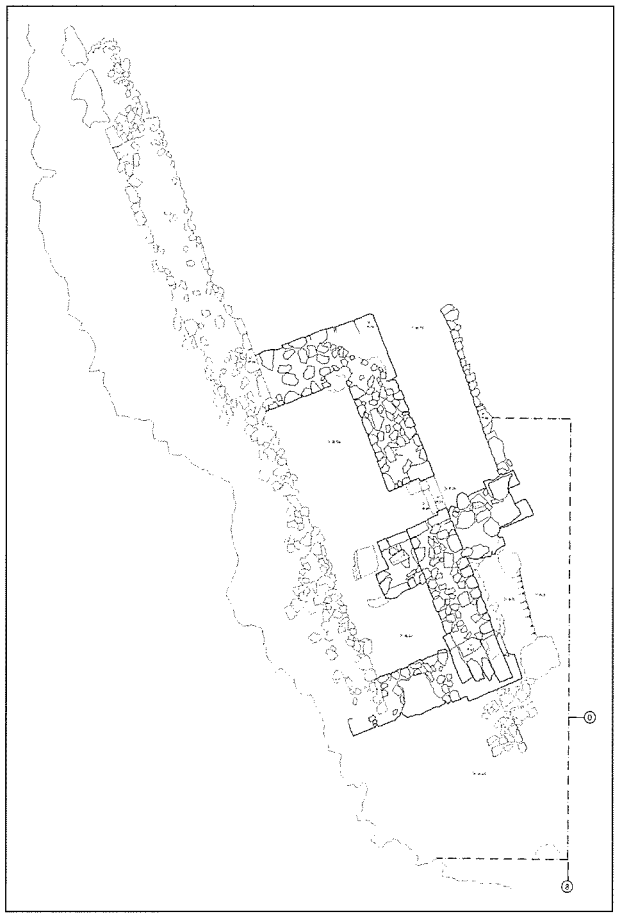

Fig 25. West Building: State Plan by Andrew Wixom.

In 1992 New York University renewed work in this area which continued through the 1994 season. Trenches sunk at Q 9 and R 8 were intended to establish a stratigraphic sequence independent of the areas opened up in the 1982 operation (Figs 7, 18, 25). But Q 9 proved to be nearly void of finds, and R 8 showed some contamination at its westernmost end where it crossed over a sondage opened in the 1982 excavations. Nonetheless, R 8 yielded valuable evidence for dating, including a bronze coin of Cleopatra VII and Ptolemy XVI Caesar (47-44 B.C.) as well as two oil lamps of local manufacture, one dated 75-25 B.C. (L92.01) and the other to *ca.* 50 B.C. or slightly later (L.92.07).[39] A

39. Connelly and Młynarczyk (2002), Cat. 1, figs 6a and 16a; Cat. 12, fig. 10.

bronze needle (MB.92.0) and bits of iron (MI.92.03, 04) were recovered here as well as a fragment of glass (G.92.09), a color-coated kantharos handle (P.92.28) and quantities of bones.

In 1994 work concentrated on the walls of West Building itself (Fig. 25). Excavations in P 8 exposed a foundation trench snug up against the southernmost part of the eastern façade of the building. This foundation trench was dug through a level of hard clay that makes a rare appearance here towards the surface of the cliff where much of the calcarenite crust has broken away. A trench was dug for some 3m. along the eastern façade of the building, giving us one of the few opportunities we have had to dig a proper foundation trench on Geronisos, so shallow is the stratigraphy in most areas. The trench measured some 0.80m. in width some and was packed with medium sized stones and re-deposited *terra rosa*. At the very bottom of the foundation trench, at a depth of some 0.80m. beneath the surface, diagnostic pottery sherds were found. These include 17 joining fragments of a Cypriot Sigillata bowl with out-curved rim (P 94.01, Fig. 20). As this fabric does not occur earlier than *ca.* 100 B.C., the construction of West Building can be placed firmly within the first century. Several iron nails (MI.94.02, 03, and 05) were recovered here along with other iron bits (MI.94.06, 07).

Construction on the edge of the island was tricky. In places, the builders dug out the *terra rossa*, leveled the bedrock and then poured thick white plaster into setting beds that could accommodate large ashlar blocks at the corner points of the foundations. Where the calcarenite crust rises in boulder-like protuberances, the bedrock itself was exploited to serve as part of the wall foundation. The large ashlars were then set as a sort of skin making up the exterior of the wall, packed inside with a rubble fill. Re-used *terra rossa* served as a dry mortar to hold the rubble core together.

The walls of West Building show the same 110cm. width that we encountered for the stretch of circuit wall in the Southwest Complex, designated as Feature 9 (Fig. 8). Again, the use of the Egyptian ell (55cm.) as a unit of measure for West Building supports a Ptolemaic construction date. That this building was lavishly adorned in its original state is demonstrated by the abundant fragments of mouldings and decorations retrieved from the slopes running down to the sea. In 1994, team member George Marshall Peters descended the cliffs and made a systematic search for materials fallen from above. His efforts retrieved some 13 fragments of limestone mouldings (including StA. 94.04-94.12, 94.14-15, 17-19), a fragment of an engaged ionic column covered with a layer of white plaster (StA. 94.03),[40] and a 50cm. square limestone slab decorated with an egg and dart moulding (StA. 94.02, Fig. 23). Most remarkably, at the very northwest tip of the island, close to the surface and lying nose down in the fill, a splendid limestone lion's head water spout was found (StA 94.01, Fig. 24). The head measures some 30cm. square and preserves traces of white plaster. In its original state, added pigment would have enlivened the expressive face. The carving of the lion's head shows real sculptural virtuosity with highly plastic modelling emphasizing the arched brow, the ferocious mouth and the bared teeth of the beast. The emphatic, spirited, almost manneristic character of the lion's head is wholly in keeping with what we might expect for late Hellenistic sculptural style. The shape of the spout is of particular interest as it clearly was made to fit onto the corner of the building, showing a crisp right angle on its interior face.

Just over 1000 sherds were recovered from the area of West Building of which 74% were fine or table wares, 21.7% were cooking wares, 2.2% were amphorae, mostly Coan in origin. Roughly 92 vessels could be approximated from a rim and base count. These include eight jugs, two lagynoi, seven bowls of Eastern Sigillata A

40. Maximum preserved length 49.5cm., max. preserved height 8.5cm., and max. preserved width 46.5cm.

fabric, four bowls of Cypriot Sigillata fabric and four plates. The rim of a color coated hemispherical bowl (P.92.83), possibly Knidian, was recovered, as well as two fragments of a color coated bowl with flaring rim (P.94.57) and a rim and handle fragment of a color coated carinated bowl (P.94.56), all of possible Koan or Knidian origin. Fragments from twenty cooking pots were identified, including a diagnostic rim fragment of a deep casserole (P.92.82). Chalcolithic material made up only 2.5% of the total sherd count for this area, consistent with what we observed in the Southwest Complex where prehistoric material was also quite rare.

The miserable state of the remains of West Building today hardly reflects its original appearance. The quantity of decorative mouldings that once adorned it, the tiled roof that is so rare for the Hellenistic period in Cyprus, the orientation of the building facing east with a central doorway, all indicate that we have a significant building here, most probably a temple. Unfortunately, only the east façade survives, to a length of some 9.5 metres across. The north and south walls survive for only a few meters at each side before they break off at the point where the entire western end of the island has collapsed into the sea.

In size and decoration, the structure would have been fairly modest, roughly comparable in appearance to the temple of Aphrodite on *Fabrica* Hill at Nea Pafos. The Pafian temple is a simple one room building, the stylobate of which measures roughly 10m. in width by 12m. in depth.[41] It shows a central doorway on the east façade and the cella is without exterior colonnade. Similarly, the temple of Apollo Hylates at Kourion is relatively small and simple in plan. It measures just 8.35m. in width and 13.50m. in length. Though the temple that presently stands at Kourion has been dated to the Neronian period (A.D. 54-68), it may well reflect the proportions of the temple that preceeded it. Evidence suggests that the earlier structure had a simple one room cella plan and was without the four columns and staircase that adorn the front of the building that stands today.[42] So too, the Geronisos temple would have been a simple, one-roomed structure of similar dimensions, marked with a central doorway on its east side. The cella would have stood on its own without an exterior colonnade. Impressive lion's head water spouts would have decorated each of the four corners of the building and the superstructure would have been further adorned with engaged Ionic columns and egg and dart mouldings, all plastered and enlivened with brightly painted pigment.

Rising dramatically on the very westernmost tip of the Geronisos, this structure would have been brilliantly visible to those approaching by sea from the coast of Lycia or from the direction of Rhodes. A welcome landfall, it would have served as a beacon to those crews longing for the first glimpse of the Cypriot coast. Not unlike the small temple of Athena at Lindos on Rhodes, which is set similarly on the very edge of a cliff, the temple on Geronisos was best viewed not from the mainland but from the sea where the full drama of its setting could be optimally observed.[43] Just as it was a beacon for those sailors arriving from the west so, too, Geronisos would provide the last sight of Cyprus for the ships setting off from the great port of Pafos for Rhodes and on up the coast of East Greece. More than one sailor probably offered a prayer for a safe voyage, looking up at the exhilarating view of Holy Island and the simple elegance of its small ionic temple.

Further excavation is essential in order to understand better the nature of the activity upon Holy Island during the first century B.C. What

41. G.R.H. Wright, *Ancient Building in Cyprus* (Leiden 1992), 263, Fig. 123. J. Młynarczyk, "Remarks on the Temple of Aphrodite Paphia in Nea Pafos", *RDAC* (1985), 286-292.

42. *Ancient Kourion Area*, L. Swiny, ed. (Nicosia 1982), 65.

43. E. Dyggve, *Lindos, fouilles de l'acropole 1902-1914 et 1952.* Vol. 1, III. Le sanctuaire d'Athena Lindia et l'architecture Lindienne" (Berlin and Copenhagen 1960).

we can say with certainty at this point is that Geronisos was a single use site, its structures were built with plenty of resources and with a specific purpose in mind. It is also clear that the site functioned during a very narrow chronological period that falls somewhere between 80/70 B.C. and 40/30 B.C. A shorter time frame rather than a longer one is likely, and it is during the third quarter of the 1st century that the island enjoyed its period of greatest activity. Of the 13 coins found to date on Geronisos, one dates to Ptolemy VIII Euergetes II (170-164/3 and sole reign 146/5-117/6 B.C.), two belong to Ptolemy King of Cyprus (80-50 B.C.), the overwhelming majority of seven coins belong to Cleopatra VII and Ptolemy XVI Caesar (47-44 B.C.), and two coins are of Cleopatra VII (44-30 B.C.). Material from Geronisos is all the more interesting because it falls precisely during the years for which we have so few published sites and finds from the Eastern Mediterranean. It thus presents a rare opportunity to understand better the "lost years" in the archaeological record that span the period 80-30 B.C.

The coins from Geronisos are minted at Pafos which, of course, provides the nearest point of reference for material excavated from the island. The pottery, lamps and glass all have good parallels among the finds from the House of Dionysos at Nea Pafos.[44] Architectural parallels are harder to come by, as remains of big public buildings from the Hellenistic period are all but non-existent in Nea Pafos, thus disallowing any ease with comparison.[45] To be sure, the *Fabrika* Hill theater is Hellenistic in date but shows us little of what Ptolemaic monumental architecture looked like on Cyprus. Architecture for the period is most abundantly represented in funerary contexts where the rock-cut "Tombs of the Kings" take centre stage.[46] In the realm of domestic architecture, we have remains of a Hellenistic villa excavated by the Polish Mission at *Maloutena* beside the Villa of Theseus.[47] But one is hard pressed to find good comparisons for the impressive lion's head water spout, egg and dart mouldings and engaged ionic half columns from the proposed temple building on Geronisos. The fact that the western end of the island that supported this structure has completely collapsed into the sea does not make things any clearer.

It is the smallest of finds that may serve as a pointer to the larger meaning of the site. This comes in the form of the limestone amulets that, to the best of my knowledge, have not been found elsewhere to date. One distinctive example (A.94.02, Fig. 21) excavated from the Central South Complex shows a maritime motif in the form of an anchor. This design is one that is known from Knidian amphora stamps, such as that preserved on a handle found at Nea Pafos and dated to sometime after 86 B.C.[48] The amulet shows a long rectangular shape, tapering towards the top, that resembles objects shown suspended from strings worn across the chests of small boys depicted in Cypriot limestone statuary.[49] These votive statues of so-called "temple boys" first appear during the fifth century B.C. and persist into Hellenistic times. They have been found at several sanctuaries, some few of which belong to Aphrodite-Kourotrophos, but the vast majority of

44. J.W. Hayes, *Pafos: The Hellenistic and Roman Pottery*, vol. III (Nicosia 1991).
45. Wright (1992) 536. *BCH* 90 (1966), 365-65.
46. M. Hadjisavvas, *The Tombs of the Kings* (Nicosia 1986).
47. W.A. Daszewski and Z. Szetyllo, "La region de Maloutena avant la construction de la villa de Thesee", *RDAC* (1988 Part 2), 195-203.
48. Zofia Sztetytto, *Nea Pafos* I, *Les Timbes Ceramiques, 1965-1973* (Warsaw 1976) 358. Inv. No. 256/E. A second amphora stamp with a similar image of an anchor was found at Salamis, Y. Calvet (1972), 65, no. 135.
49. Beer (1994) see especially Cat. No. 213, plate 45; Cat. No. 238, plate 153, from Kourion; Cat. No. 198, plate 154, from Kourion; Cat. No. 195, plate 155, from Kourion; Cat. No. 196, plate 164, from Kourion; Cat. No. 243, plate 166, from Kourion; Cat. No. 168, plate 49; Cat. No. 194, plate 176, from Kourion; Cat. No. 175, plate 177, from sanctuary of "Reshef-Mikal-Apollo-Amyklos" excavated by R. Hamilton Lang; Cat. No. 219, plate 179, from Golgoi; Appendix B, No. 2, plate 202; Appendix B, No. 4, plate 202, from Golgoi. See also, J.B. Connelly, *Votive Sculpture of Hellenistic Cyprus* (Nicosia 1988), 3-4, fig. 1.

which were dedicated to the worship of Apollo.[50] The sanctuary of Apollo Hylates at Kourion has produced a particularly large number of statues of this type and, even more specifically, statues that show boys wearing strings of talismans, including signet rings, pierced disks and amulets resembling the Geronisos pendants.[51] The amulets found on Geronisos thus provide our most direct evidence that the island served a cultic function in antiquity, perhaps specifically as a sanctuary of Apollo. Cyprus is, indeed, well known for the longevity and continuity of its traditional cults. The Ptolemies of Egypt are equally well known for their policy of respect and promotion of indigenous religious practices.[52] The cult function of young boys in Cypriot sanctuaries may thus have continued right through to the twilight of the Ptolemies and to remarkable island sanctuary that we call Geronisos.

50. Beer (1994). For statues from sanctuaries of Aphrodite-Kourotrophos see pages 15, 28, 38, 39, 41; At Idalion (Cat. 110-113, 116, 123) and at Chytroi (Cat. 66). One example has been excavated from the temple of Aphrodite-Astarte at Tamassos (Cat. 117). Temple boys have also been found at the sanctuaries of Apollo at Voni, Potamia, Lefkonico, Golgoi and Athienou.
51. Beer (1994). For statues from the sanctuary of Apollow Hylates see pages 35-36, 55-62, 69-72, 83. See above, note 49.
52. Wright (1992), 536.

ΠΕΡΙΛΗΨΗ

Μια ομάδα από το πανεπιστήμιο της Νέας Υόρκης, υπό την διεύθυνση της Καθ. Joan Connelly, ανέλαβε μια περίοδο αρχαιολογικής επισκόπησης (1990), δύο περιόδους οικολογικής επισκόπησης (1990, 1992), πέντε ανασκαφικές περιόδους (1992-1994, 1996-1997) και τέσσερις περιόδους μελέτης (1995, 2000, 2001, 2002) στο νησί Γερόνησος, στις ακτές του Αγίου Γεωργίου Πέγειας, σε απόσταση περίπου 18 χιλιομέτρων από την Πάφο. Η εργασίες αυτές, έχουν εντοπίσει τρείς βασικές περιόδους κατοίκησης: την Πρώιμη Χαλκολιθική, την Ύστερη Ελληνιστική και την Πρώιμη Βυζαντινή. Η ζωηρότερη φάση δραστηριότητας είναι κατά τη χρονική περίοδο η οποία έπεται της αποκατάστασης της Πτολεμαϊκής κυριαρχίας, όταν βασιλεύει η Κλεοπάτρα VII της Αιγύπτου (47-30 π. Χ.). Τότε είναι που χτίστηκε στο νησί ένα ιερό, πιθανόν αφιερωμένο στον Απόλλωνα. Το ιερό έπαυσε να λειτουργεί κατά το τέλος της Πτολεμαϊκής κυριαρχίας που ακολούθησε την ναυμαχία του Ακτίου, το 30 π. Χ. Οι αρχιτεκτονικές κατασκευές κατέρρευσαν στη συνέχεια, εξαιτίας ενός καταστροφικού σεισμού το 17 π.Χ., και δεν ξαναχτίστηκαν.

Η έκθεση αυτή παρουσιάζει τα αποτελέσματα των γεωλογικών, οικολογικών, αρχαιολογικών και γαιωμαγνητικών ερευνών, τις οποίες ανέλαβε η αποστολή New York Geronisos Island Expedition. Παρουσιάζονται επίσης τα πορίσματα των ανασκαφών της δυτικής άκρης της θέσης. Εδώ, ένα ιερό του 1ου αιώνα π. Χ., διατηρεί τα θεμέλια ενός κτηρίου το οποίο μοιάζει με βωμό και ήταν πλούσια διακοσμημένο με ιωνικούς ημικίονες, έκτυπα κυμάτια και μια υδροροή η οποία καταλήγει σε λεοντοκεφαλή. Όλα αυτά ήταν αρχικά γυψωμένα και ζωγραφισμένα για να μοίαζουν με μάρμαρο. Μεγάλο μέρος του ιωνικού αυτού αρχιτεκτονήματος, έχει καταρρεύσει μέσα στη θάλασσα μαζί με τους δυτικότερους απότομους βράχους της πλαγιάς. Η είσοδος που οδηγούσε στον περίβολο, στην νοτιοδυτική άκρη του νησιού, διατηρεί σειρά από τοίχους οι οποίοι θα στήριζαν τότε κάποιο σημαντικό αρχιτεκτόνημα με εντυπωσιακή κεραμωτή σκεπή. Εδώ είχαν ανευρεθεί ποσότητες καλής ποιότητας κεραμικής όπως, Κυπριακή Sigillata A, και πολλά κύπελλα κατασκευασμένα με μήτρα, με ανάγλυφη διακόσμηση. Το σχηματολόγιο των αγγείων, στο οποίο υπερισχύουν τα μικρά κύπελλα, υποδηλώνει την παρουσία μιας διατροφής ιδιαίτερα πλούσιας σε υγρής μορφής εδέσματα.

Είναι προφανές ότι η Γερόνησος είχε αναπτυχθεί ως θέση με μια μόνο ειδικευμένη χρήση. Οι αρχιτεκτονικές της εγκαταστάσεις είχαν χτιστεί με τη χρήση μεγάλου αριθμού αποθεμάτων και με πολύ συγκεκριμένο στόχο. Η ανακάλυψη μιας σειράς από μικρά φυλαχτά τα οποία μοιάζουν με τα φυλαχτά που φορούν οι νέοι άνδρες στα κυπριακά αναθηματικά αγάλματα και ιδιαίτερα με αυτά τα οποία είναι αφιερωμένα σε βωμούς του Απόλλωνα, αποτελεί ένδειξη για το ότι το ιερό της Γερονήσου ίσως να ήταν θέση για τελετές μύησης αγοριών. Τα φυλαχτά αυτά αποτελούν την πιο άμεση ένδειξη για το ότι το νησί αυτό, υπήρξε στην αρχαιότητα λατρευτικό κέντρο και θα μπορούσε περαιτέρω να ταυτιστεί με ιερό του θεού Απόλλωνα. Είναι ξεκάθαρο το ότι η θέση λειτουργούσε για μια πολύ μικρή χρονική περίοδο η οποία τοποθετείται περίπου μεταξύ του 80/70 π.Χ. και 40/30 π.Χ. Τα χρονικά πλαίσια είναι πιο πιθανόν να είναι στενότερα παρά πλατύτερα, και είναι κατά τη διάρκεια του τρίτου τετάρτου του 1ου αιώνα που το νησί απόλαυσε την πιο δραστήριά του περίοδο.