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Prehistoric and Ancient Harbors in the Korinthia (Greece): A Geoarchaeological Approach for Determining Maritime Trade Patterns.

1999 Season

Table of Contents

List of Plans

List of Figures

Project Background

The Korinthia is poised at the maritime crossroads of the Mediterranean, yet its prehistoric harbors remain largely unknown. This gap in evidence is a serious problem in the understanding of prehistoric interaction in the Korinthia, Aegean and Mediterranean. This project will integrate gemorphological, remote sensing, and archaeological techniques to address two questions and fill a gap in our knowledge and understanding: What were the scope and extent of prehistoric regional and extra-regional trade? Where were the prehistoric harbors?

Project staff was composed of Dr. Richard Rothaus (St. Cloud State University), Dr. Eduard Reinhardt (McMaster University), Dr. Thomas Tartaron (Massachusets Institute of Technology). Graduate students Fleur Leslie (McMaster University) and Amber DeMorett (St. Cloud State University) provided assistance. Work was conducted with a permit from the Greek Institute for Geological and Mineralogical Exploration andin co-operation with the Eastern Korinthia Archaeological Survey (EKAS), directed by T.E.Gregory and D. Pullen.

Generous support for this research has been provided by the Foundation for the Research and Exploration of Cultural Origins, St. Cloud State University and McMaster University.

Season Research Goals

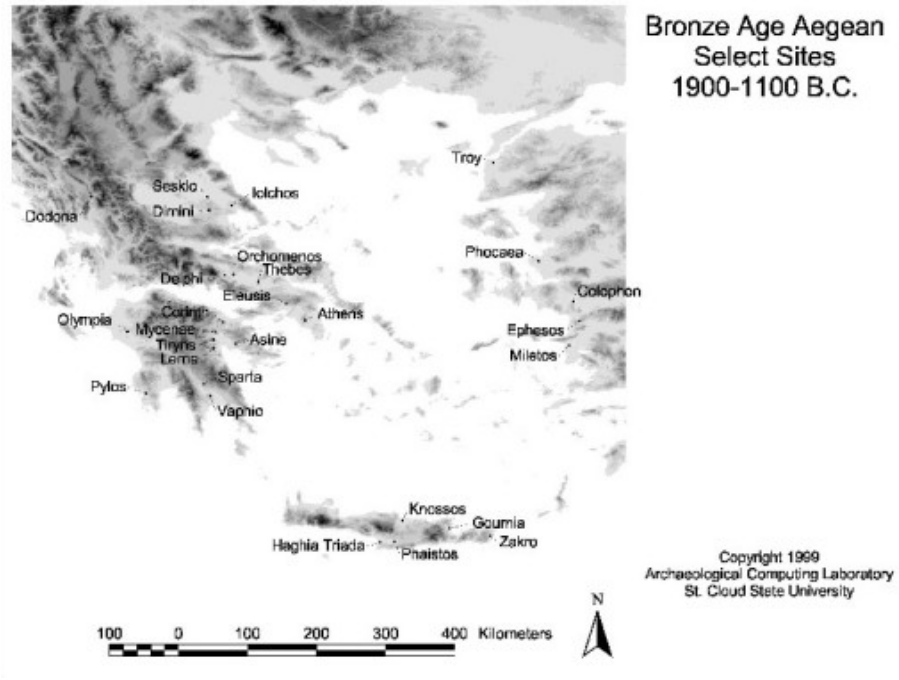
The season goals were defined to address the difficulties of identifying prehistoric and post-prehistoric harbor sites in the Korinthia. These problems include the absence of built harbor works, the obscuring effect of subsequent landscape modification and usage (especially in the late 20th century), coastal change, including eustatic sea level change and co-seismic uplift and subsidence, and geomorphological processes that have obscured, altered or removed surface ceramic scatters. While initial intentions were to cover only the eastern Korinthia, it has proven possible to include a consideration of the entire southern Korinthia.

The initial research design called for collection and analysis of diagnostic ceramic scatters at potential harbor sites in cooperation with the Eastern Korinthia Archaeological Survey. Despite requests to the contrary, the archaeological survey permit issued by the Greek government to EKAS did not allow any collection of ceramics, and it is likely that collection surveys will not be allowed in Greece for the foreseeable future. As a result of this EKAS has developed a field technique that allows for in the field analysis and documentation of ceramic scatter. The logistics of this methodology are complicated and time consuming, EKAS perform the survey of potential harbor sites in the summer of 2001 in one concerted block. This change in season goals did allow for more time for geoarchaeological investigations in 1999 as noted in this report.

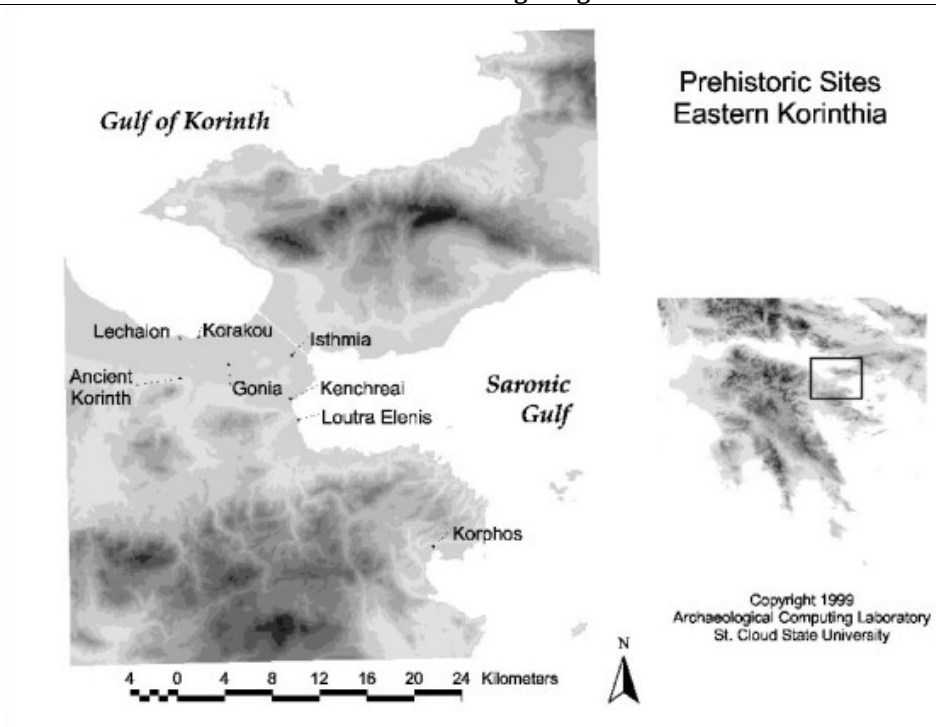
The specific goals for the season were

- Analysis of Landsat TM multispectral imagery for coastal lagoons, marshes and shallow water areas (features that are amenable to usage as harbors).
- Ground-truthing of Landsat TM analysis.

- GIS modeling of possible harbor sites based on topography, proximity to potential sources of fresh water, and presumed land transportation routes to create a list of potential harbor sites.



Plan 1: Bronze Age Aegean.



Plan 2: Prehistoric Korinthia.

Field examination of potential harbor sites for architectural remains, ceramic scatters and indicators of pre and post-historic occupation or utilization.

- Core sampling of select coastal marshes in proximity to known or presumed ancient harbors.

Field Methodology

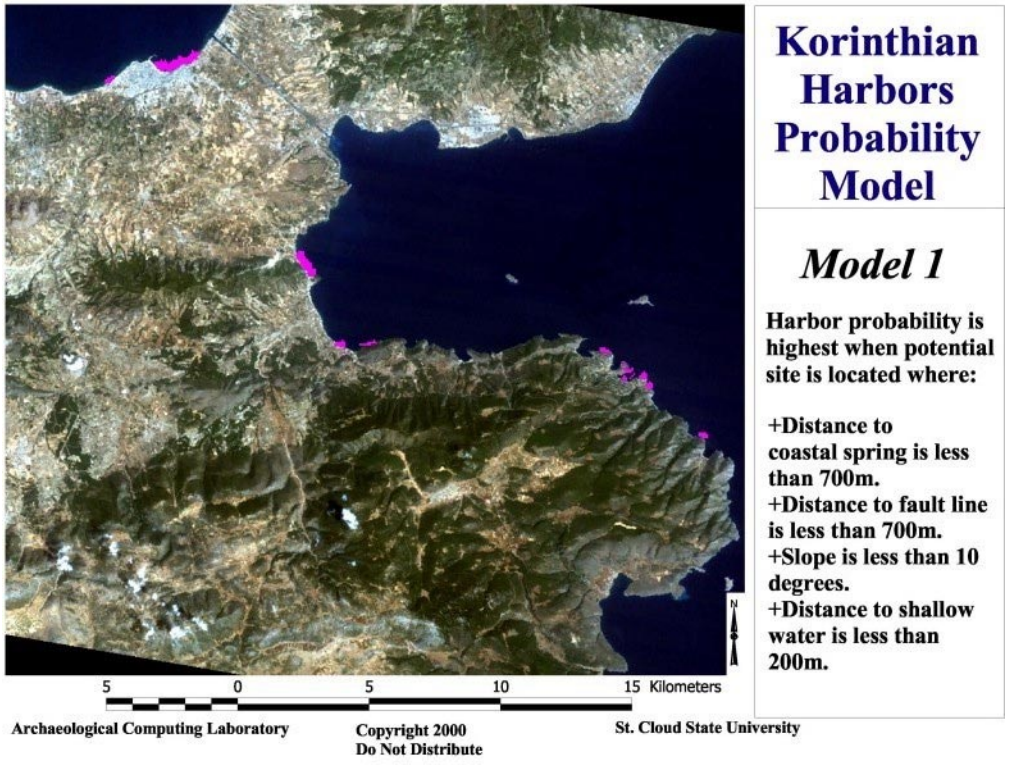
GIS Modeling

GIS Modeling was designed to identify potential harbor sites on the basis of the following criteria:

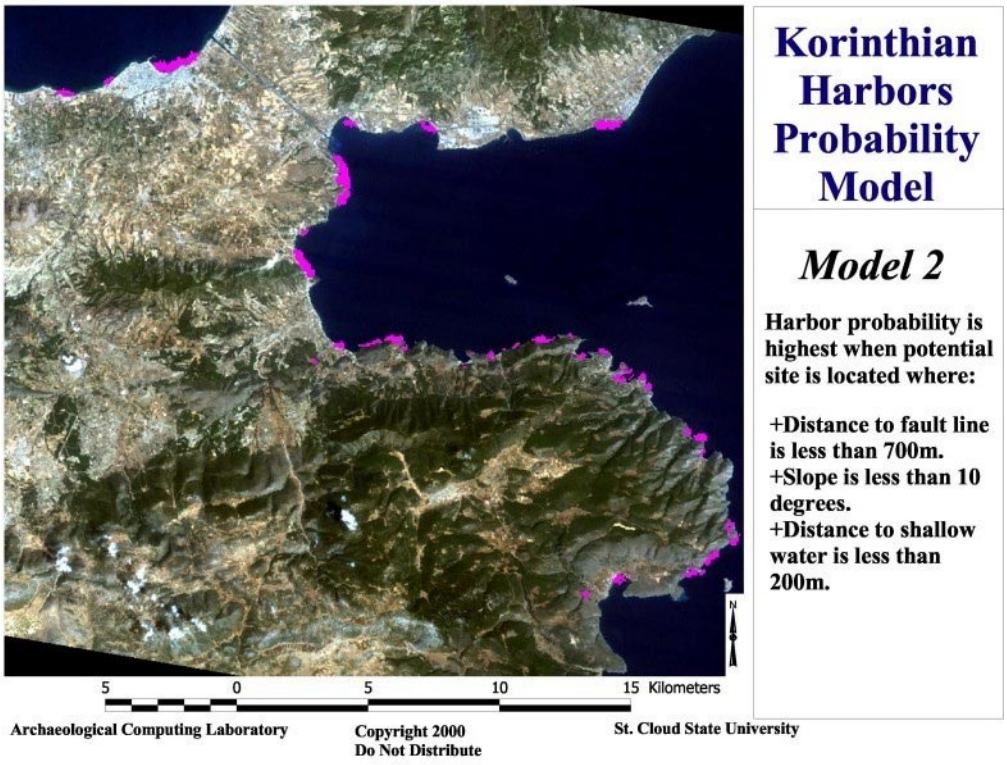
1. *Bathymetry.* The small draw of ancient ships enabled the use of relatively shallow harbors. Shallow harbors were particularly preferred in the prehistoric and Greek periods when ships were commonly beached when not in use. Given the absence of detailed bathymetric charts for the coastline, shallow water was derived from remote sensing data. It should be noted, of course, that current shallow conditions need not reflect ancient shallow conditions; coastal uplift can turn what once was deep shallow, and coastal subsidence can turn what once was shallow deep.
2. *Proximity to freshwater springs.* The Korinthia is a semi-arid region and streams are dependable for freshwater only intermittently. Fresh water springs are essential in the region for the maintenance of settlements, and of course were desired by passing ships to replenish drinking water. Active springs in the Korinthia have not been mapped in detail and cannot be detected with present remote sensing technology, with the exception of easily detectable springs that spill into the Saronic or Korinthian gulfs. Additionally springs change frequently in this seismically active region, and currently active springs need not indicate anciently active springs, and vice versa.
3. *Slope.* A general rule is that humans will not utilize an area where the slope is greater than 15˚, and prefer areas where the slope is less than 8˚. Slope data can be derived from the existing GIS, although it is not always accurate.
4. *Marshes.* Prehistoric sites and harbors in the Aegean tend to favor marshy areas. The reasons for this preference are uncertain, they may include the relative protection a marsh can offer, the abundance of plant and animal food, and the ease of beaching ships. There are, however, few remaining marshes in the Korinthia as most have been infilled in the late 20th century. Thus former marshes are (at best) identifiable only upon site inspection and in some cases will require core sampling. While marshes will play a role in an explanatory model, they cannot at this point be integrated into the GIS.
5. *Topography.* On the basis of known Mediterranean harbors, it is well known that circular coves that provide protection from prevailing winds (from the west and north in the Korinthian Gulf, and north and east in the Saronic Gulf). While the GIS system is capable, with an excessive amount of work, to define such areas on the basis of digital terrain data, it is fair easier to locate such areas on the basis

Evaluation of all criteria 1 through 5 allowed the GIS to create a coarse probability model indicating the areas most promising for field investigation. Because of

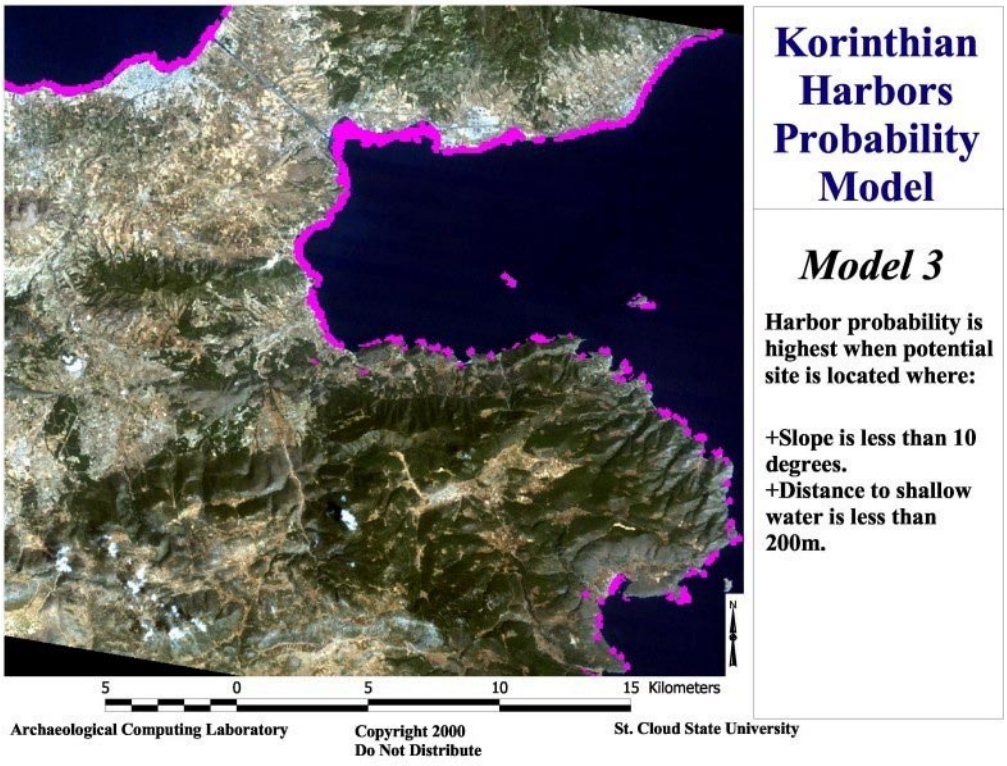
the difficulties inherent in criteria 2 (proximity to freshwater), three variations on the model were utilized. Model One prioritized large active coastal springs as some of these are known to have been active since antiquity. Model Two prioritized proximity to fault lines, as all springs in the region past or present, are found along these lines. Model Three admitted defeat in this regard and ignored this criterion.



Plan 3: Probability Model 1.



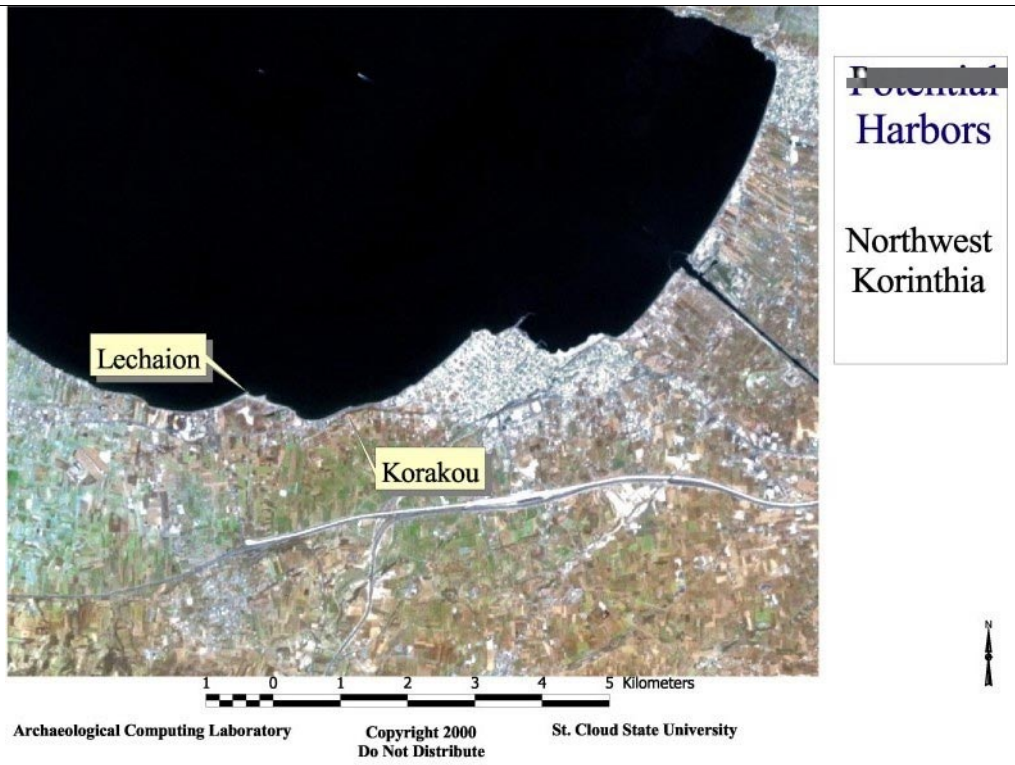
Plan 4: Probability Model 2.



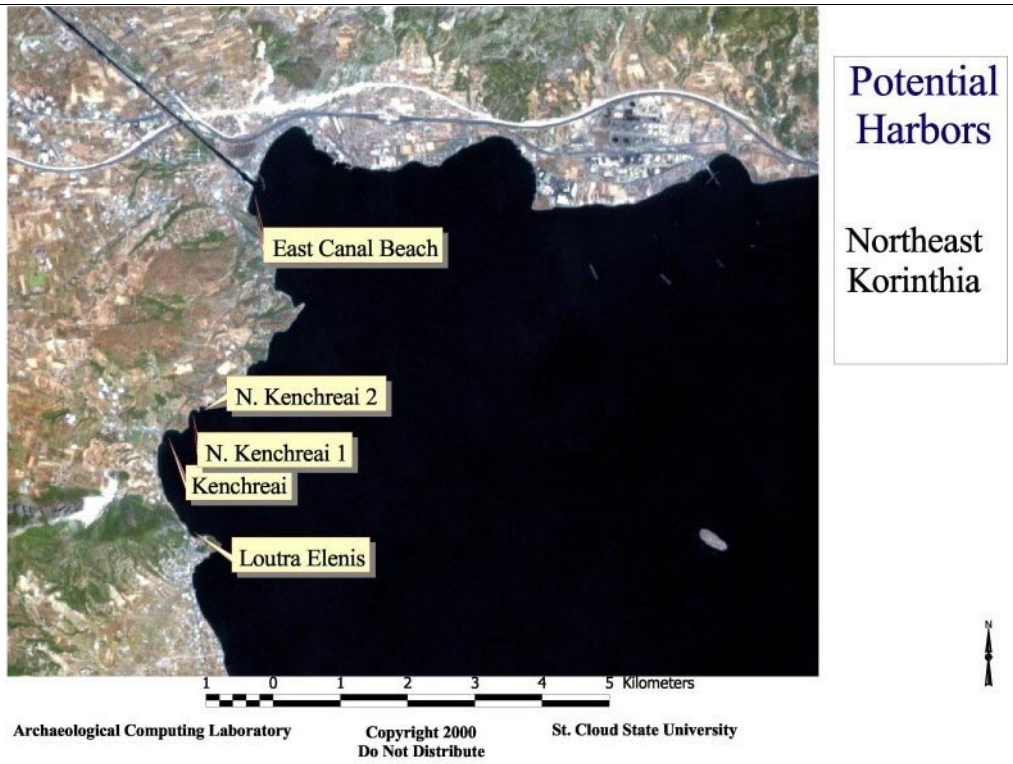
Plan 5: Probability Model 3.

As is evident in the maps generated by these models, the system has not, of course, led to a dramatic leap forward in our ability to locate probable harbor sites; an experienced archaeologist could have intuited the same. What the system has done, however, is simplified the logistics of such work, and more importantly necessitated an explanation of the often unconscious criteria used in determining what are probable sites. This is an important step toward an interpretive model.

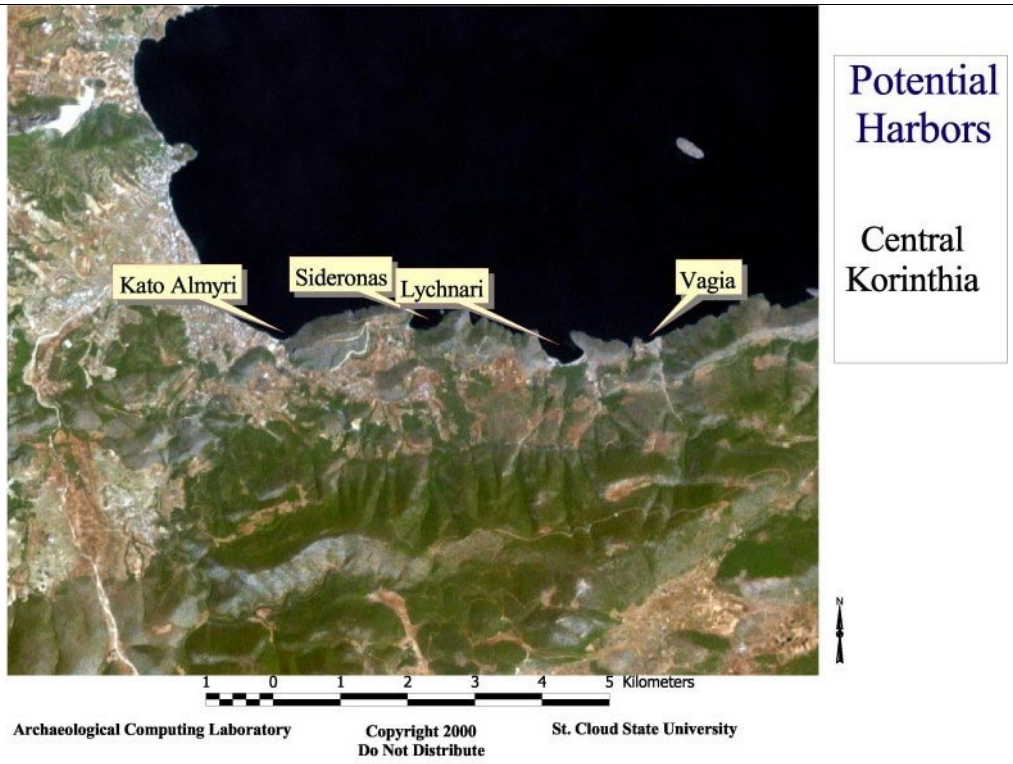
The model results were then examined with an eye toward criteria 5 (topography) and potential harbor site worth of field examination were chosen. When topography looked extremely promising, sites were added to the list even if absent from GIS model. This was necessitated by the imperfect nature of the remote sensing and other GIS datasets. E.g. not every shallow water areas was successfully detected and select ground truthing of areas where shallow water was suspected on the basis of topography was necessary. A total of 25 potential harbor sites were identified, including the two known harbors of Lechaion and Kenchreai.



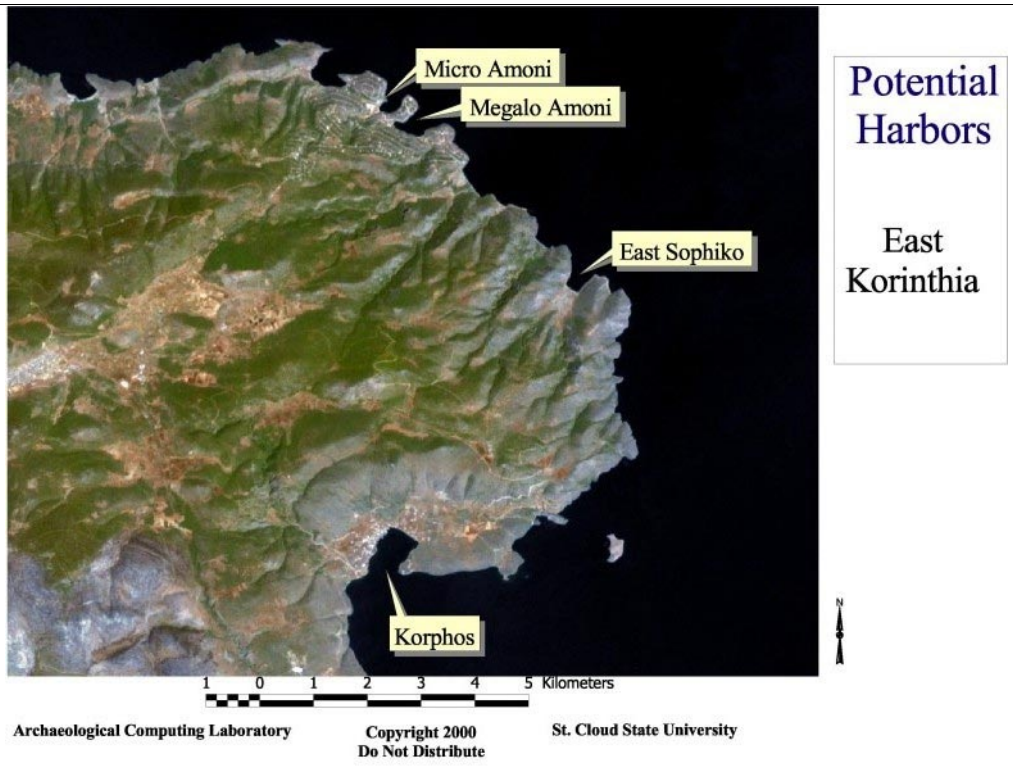
Plan 6: Northwestern Harbors.



Plan 7: Northeastern Harbors.



Plan 8: Central Harbors.



Plan 9: Eastern Harbors.

Field Survey

Much of the field season was spent visiting the potential harbor sites identified. Each site visited received a preliminary geomorphological and archaeological analysis. The rough terrain made accessing the site via land quite difficult and time consuming and another season is necessary to complete the task.

EAST CANAL BEACH

This area has been heavily modified by the placement of 3-4 meters of canal dump just to the south in the 19th century, and creation a drainage ditch and road in the late 20th century. A 2m wide wall (E-W), presumably Mycenean (based on ceramic finds) was excavated at this location by Oscar Broneer. The visible fill around the wall appears to be colluvium, but the geomorphology of the region is not yet understood. The wall may be part of a roadway, a retaining wall, or a key wall. In any case this is an important location that needs further investigation.

EAST SOPHIKO

The Cove at East Sophiko is difficult to access by land and perhaps may have been inaccessible from land prior to the construction of roads. The beachfront is bordered on the NW by a severe slope and on the SE by steep slopes. Underwater freshwater springs are present along the NW slope, and a fault at this location is indicated. The rocky beach is shallow and then drops off deeply. A long rubble wall and chain link fence run the length of the beach front. The wall and fence seem to be part of a monastery(?) at the location. Water-worn sherds of undetermined ancient date indicate at least intermittent usage at the site. Rocks in the water seem to be evidence of landslides and recent activity rather than ancient structures. Presence of one possible Bronze Age sherd and one fragment (found in the water) of a saddle quern indicate a strong possibility of a prehistoric and Bronze Age presence at this site

Figure 5: Facing SE.

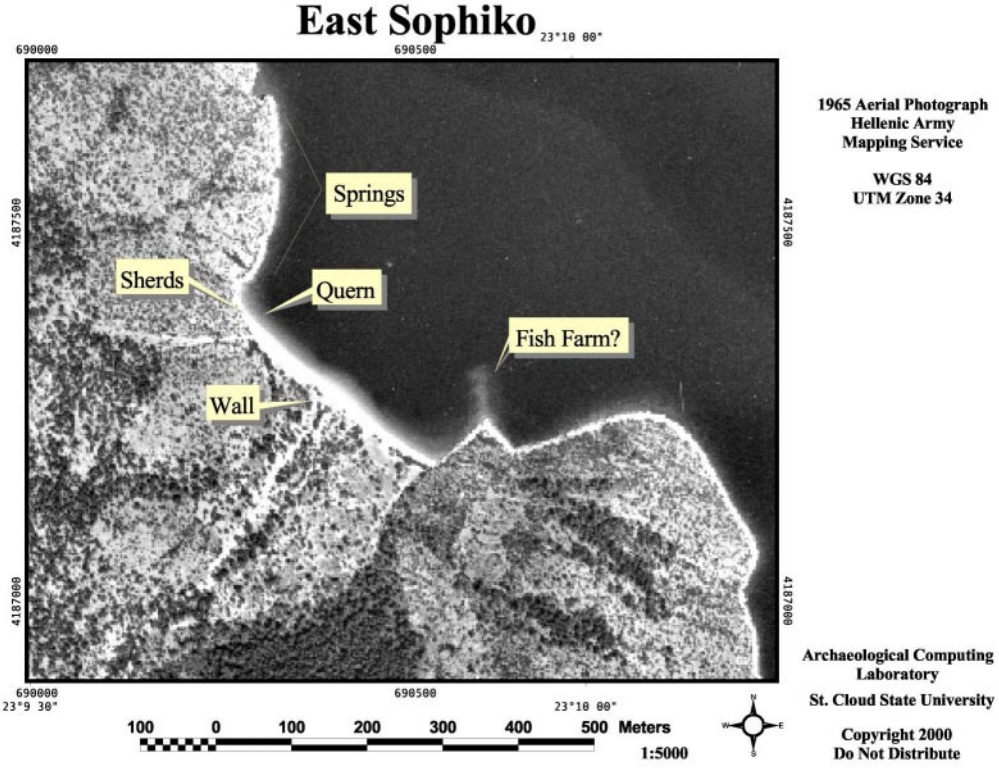
Figure 6: Facing NW.

Figure 7: Possible Bronze Age sherd.

Figure 8: Saddle quern.

Research Priorities:

- Ceramic Surface Survey.
- Geomorphological Examination, with consideration of co-seismic activity.
- Confirmation that structure at SE is contemporary fish farm.



Plan 11: East Sophiko.

KATO ALMYRI

Kato Almyri is a freshwater and brackish coastal marsh that is positioned with a steep slope to its east, formed by a fault. Numerous secondary faults are present in the area, as well as a freshwater spring with a strong outflow. Approximately 0.5 km to the south on an elevation lies the known site of Vigla. A steep cliff face separates this site from the coastal area. Vigla is unexcavated, but architectural remnants and ceramic scatter are obvious. Use and habitation (not necessarily continual) is evidenced from the Bronze Age through Roman period. The proximity this marshy area overlooked by a known site makes it a prime candidate for a prehistoric and Bronze Age harbor.

Kato Almyri has been heavily altered in the recent past. The output of the spring has been directed into channels and a reservoir and directed to power a water mill before exiting into the sea. These facilities are now abandoned. The date of the structures are unknown; they may be as early a late Byzantine, but more likely are of more recent origin. The standing mill house dates to the late 19th century at earliest on the basis of construction materials. The proximity of the mill to the gulf perhaps indicates that products were being moved via water from this site.

Much of the marsh has been infilled recently as a result of a gravel quarry on site and for recreational usage. No sherds have been noted along the shore, but given heavy modification and filling of the area, this cannot be taken as a contra-indicator. Efforts to

core at Kato Almyri met with quite limited success. Nevertheless, this remains a prime candidate for a Bronze Age harbor.

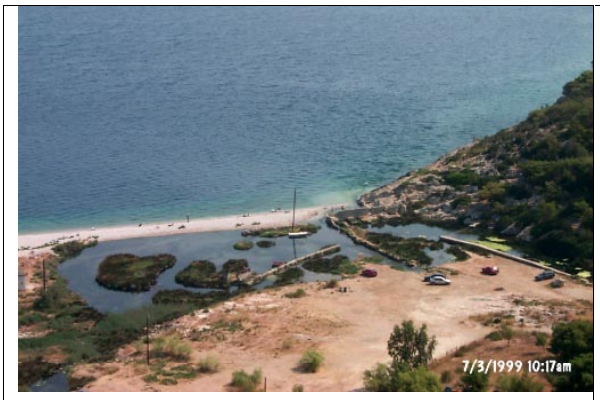


Figure 9: Springs and Marsh.

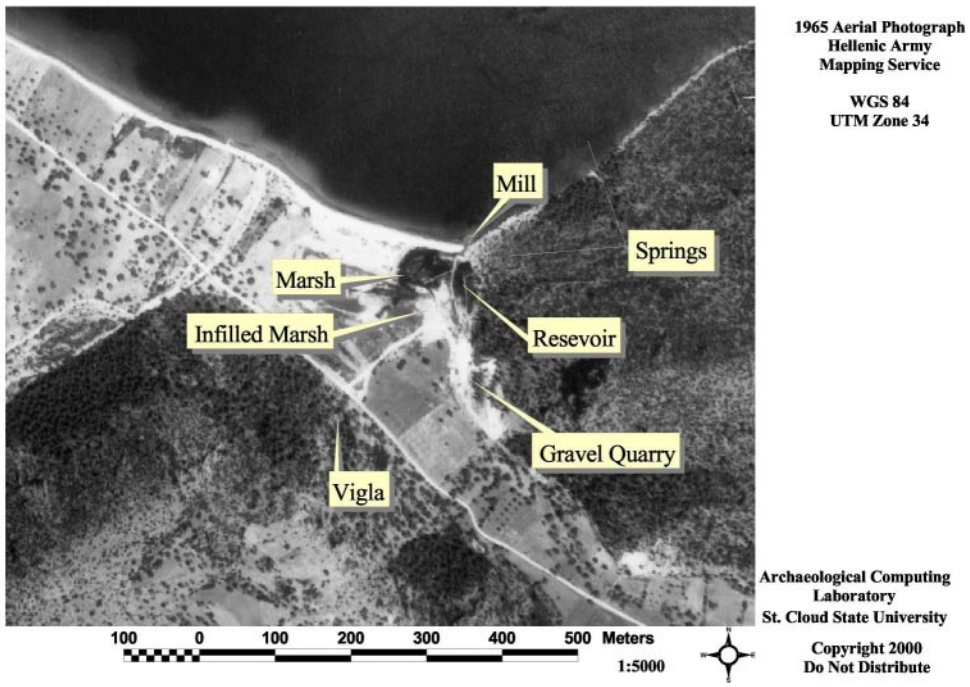
Figure 10: Vigla.

Figure 11: Shoreline.

Figure 12: Fault and Spring.

Research Priorities:

- Coring to establish marsh area and coastline.
- Ceramic surface survey of Vagia.
- Mapping of marsh area.



Plan 12: Kato Almyri.

KENCHREAI

The harbor at Kenchreai is known and published. Usage is indicated from the early Roman period through the early modern period. The natural embayment is perhaps the best suited location for a harbor in the eastern Korinthia. No usage of the harbor before the Roman period has been documented. The harbor, however, is subject to co-seismic subsidence. The result may be that early use periods are thoroughly submerged at this point and thus evidence cannot be found on land. Coring at this location is necessary to gain a further understanding of the subsidence events. Rothaus has been working on the archaeological evidence form this harbor and is ready to integrate results with geomorphological investigations.

Figure 13: Submerged harbor works.

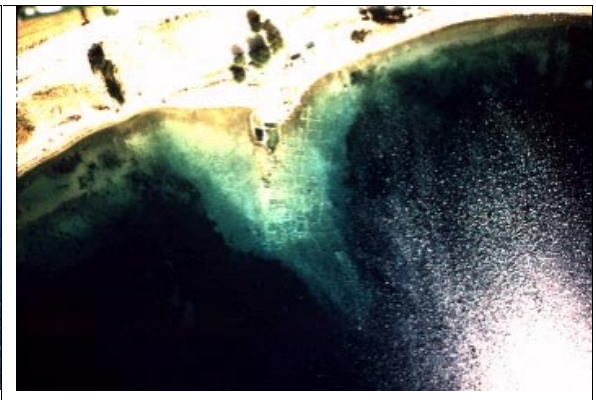


Figure 14: Structures of south mole.

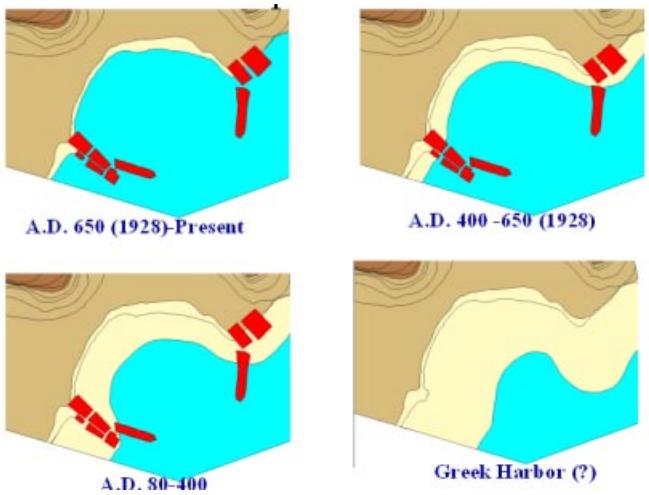


Figure 15: Proposed harbor sequences.

Research Priorities:

- Coring for examination of subsidence events.
- Ceramic surface survey.

NORTH KENCHREAI 1

North Kenchreai 1 shows now signs of usage, but would have been quite usable as an unbuilt harbor. It should be considered as part of Kenchreai. No evidence of usage was noted.

Figure 16: Modern usage as harbor.

Research Priorities:

- Ceramic surface survey.

NORTH KENCHREAI 2

The area of North Kenchreai 2 has been heavily built upon in recent years, and further archaeological investigation is not feasible. Occasional sherds are to be noted along the shoreline. The area evidences, however, important cuttings in the beachrock. One of these cuttings is a large polygonal area. Most, however, are circular cuttings about 0.50m in diameter. These circular cuttings are along the coastline. Some are submerged and others are just inside the wave zone. Their function is unknown. If all represent the same usage, they cannot be fish basins, as the one presently above the wave zone receive only intermittent spray, not water circulation. The working hypothesis is that these represent salt pans where seawater naturally collected and evaporated, leaving a concentrated salt mixture that could be removed for further dehydration elsewhere. It may be that the various circles represent steps in this process.

The presence of subaerial and submarine cuttings is problematic and seemingly is a result of co-seismic subsidence in the area, as totally submarine basins would serve no purpose. Whether the arrangement represents one or multiple subsidence episodes remains unclear.

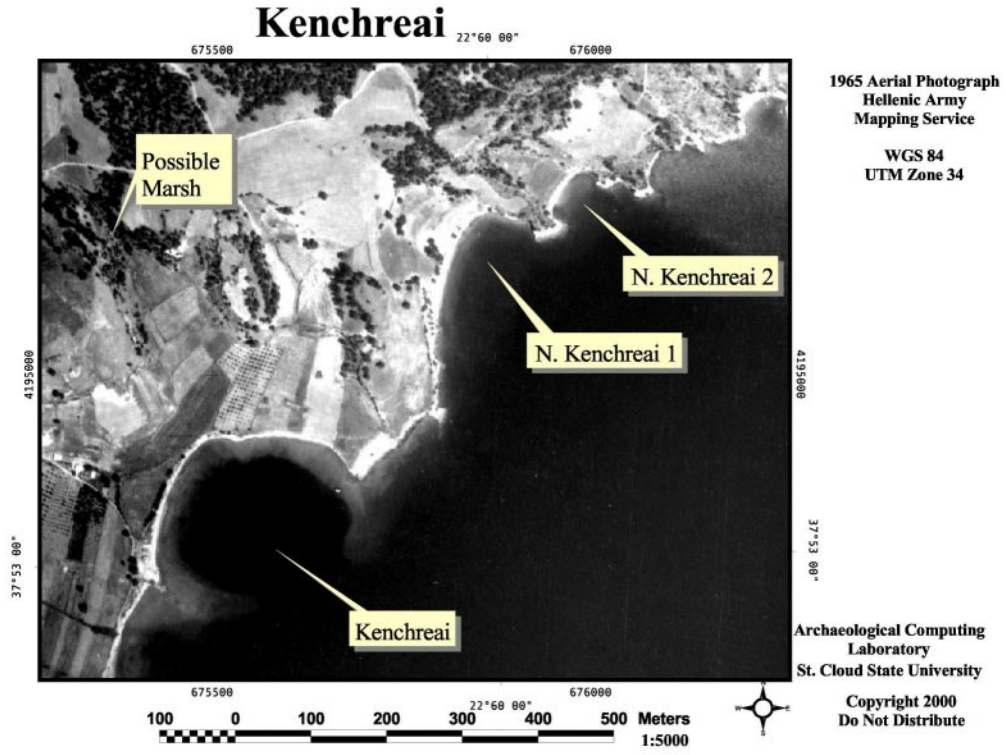
Figure 17: Submarine basin.

Figure 18: Subaerial basin.

Figure 19: Polygonal cutting.

Research Priorities:

- Mapping of cuttings in beach rock.



Plan 13: Kenchreai.

KORAKOU

Korakou is one of the more important Bronze Age sites in the Korinthia, and of known Bronze Age sites is the closest to the Korinthian Gulf. The site sites on an elevation some 150m south of the coastline, and is bordered on the north by a steep cliff. It has been suggested by some that Korakou's harbor sits directly below this defensive position. This position on the coastline is, however, unsuitable as a harbor and completely unprotected from winds. There is no indication that its character has differed from this. The known harbor of Lechaion, 1300m west, is located in a marsh and fits the seemingly preferred pattern of Bronze Age harbors much better.

Figure 20: Coastline below Korakou.

Figure 21: Looking west toward Lechaion.

LECHAION

While unexcavated, the harbor at Lechaion is known. The harbor presumably was constructed in the Greek period and remained in use until the 6th century. The harbor is located 3km north of the city of Korinth, and includes an inner harbor of 100,000 m^2 and an outer harbor of 50,000 m^2. Dredge mounds from the inner and perhaps outer harbor are evident. The area suffers from episodic co-seismic uplift. Present knowledge of the harbor has been published by Rothaus.

Several important questions remain unanswered, however. While it seems likely that the inner harbor is a natural marsh "enhanced" for usage with dredging. Given the importance of coastal marshes in the development of harbors and thus trade and communication routes, this needs to be determined more completely. The period of initial construction and use, as well as parameters for the earliest possible use remain uncertain. The extent of the outer harbor, which appears to have been uplifted and infilled needs to be determined, as well as the event(s) responsible. All of these questions are best addressed through a geological approach, especially through core analysis. Several successful cores were taken from the inner harbor.

Figure 22: Inner harbor.

Figure 23: Entrance channel.

Figure 24: Outer harbor.

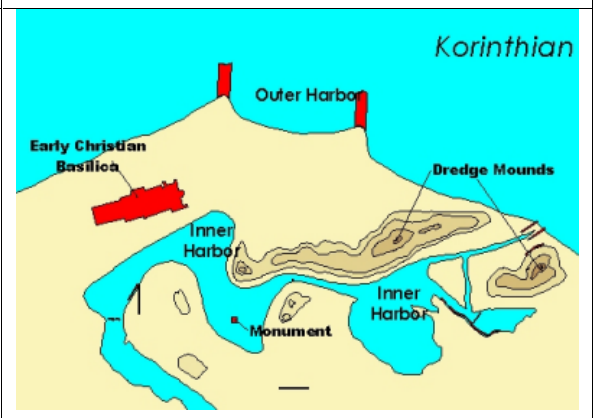
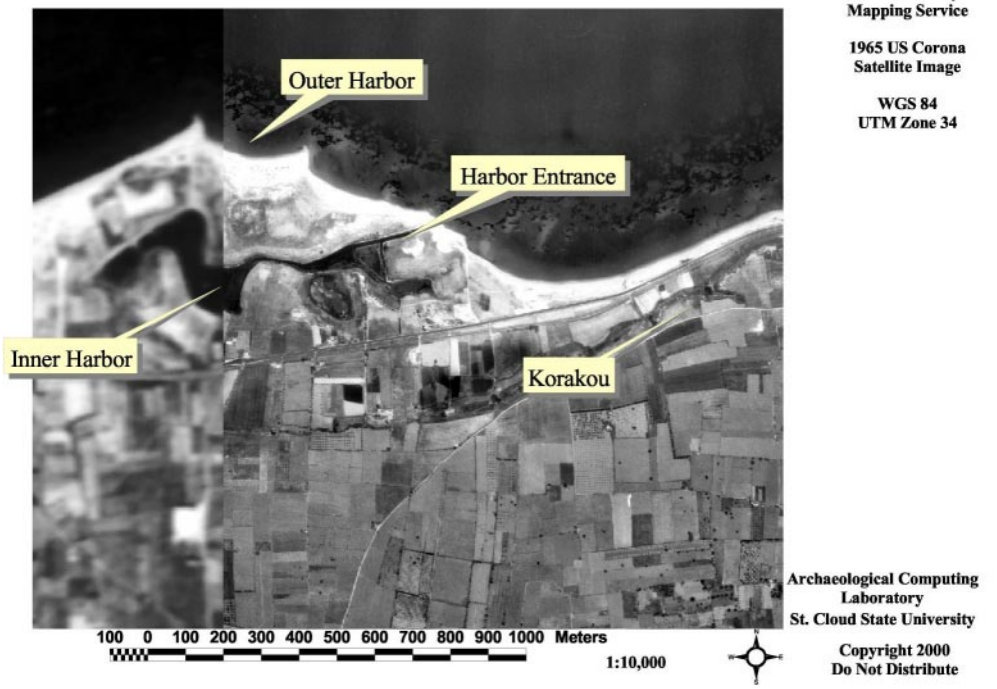


Figure 25: Harbor schematic.

Research Agenda:

- Deep cores in marsh area to further understanding of harbor and marsh origins.
- Cores in outer harbor area to determine effects of uplift and extents of harbor



Plan 14: Lechaion and Korakou.

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KORPHOS

Korphos, in the southeast Korinthia, is a remote harbor. Overland travel to this area is difficult, and may have been impossible in antiquity. Connection to other areas of the Korinthia by water is, of course, easy from this location. The area is largely unexplored archaeologically, but remains from the Bronze Age and Roman periods have been noted. A large natural embayment is formed creating a very well protected harbor. At the west end of the embayment there is a marsh. A fault in this area has created freshwater springs both in the marsh and also offshore and along the coast. An unsuccessful attempt was made in the 1960s to drain the marsh, and part of the marsh has been infilled. Core samples from the marsh were successfully taken, but deeper samples are needed to understand the geomorphology and history of this area.

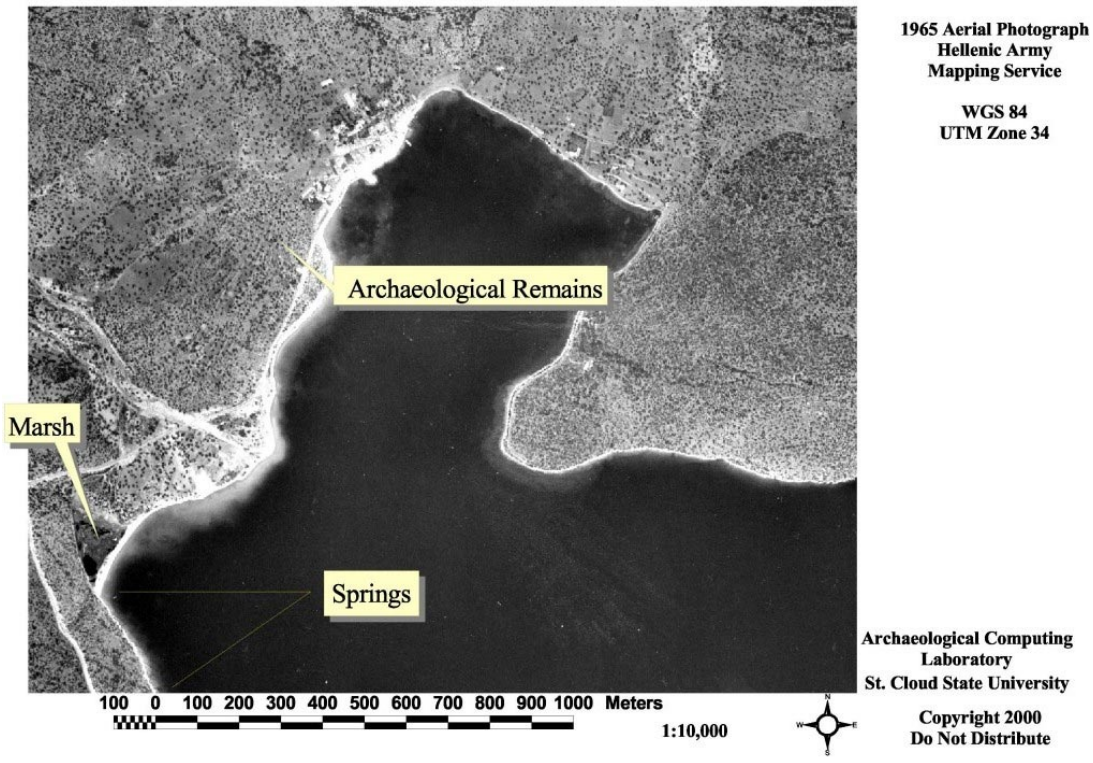
Figure 26: From marsh to coast.

Figure 27: From coast to marsh.

Figure 28: Late Roman sherds and rotary quern.

Research Priorities:

- Ceramic surface survey.
- Coring in marsh area.



Plan 15: Korphos.

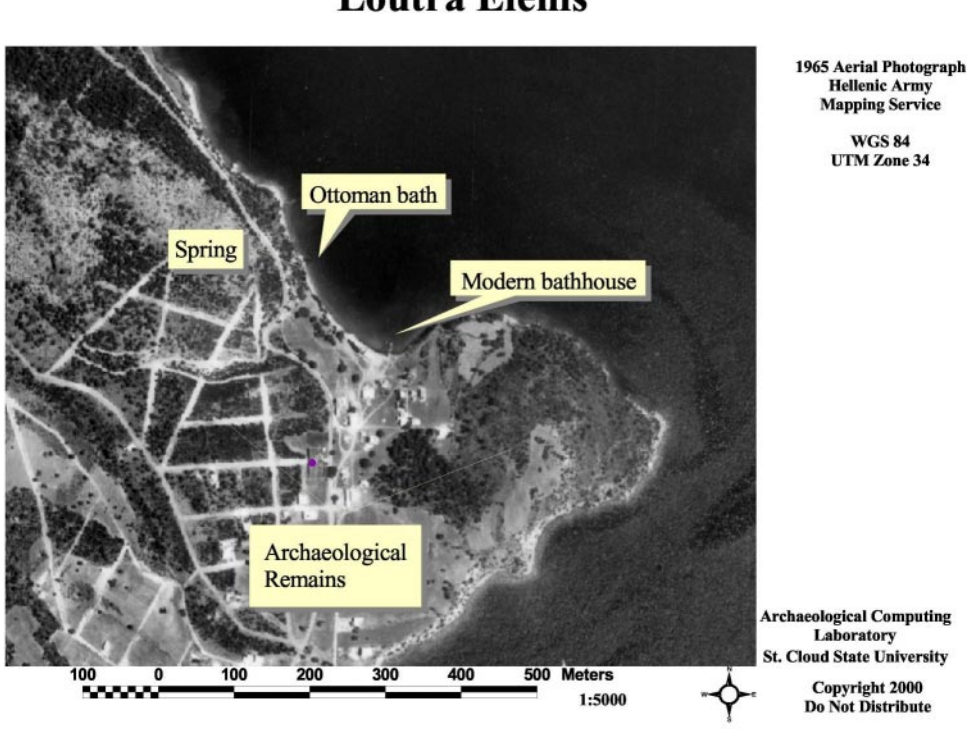
LOUTRA ELENIS

Loutra Elenis (the Baths of Helen) is a small cove south of Kenchreai. A freshwater spring, flowing from the fault responsible for the Kenchreai subsidence, flows into the sea. The spring was known in the Roman period. Modern and Ottoman (or Byzantine) bathhouses were built at the location. No archaeological remains have been located along the coast, but sherds and remains from a variety of periods ranging from Bronze Age to Roman have been found on the slopes to the south and west. The cove was probably used as a harbor for these sites.

Figure 29: Cove in 1965.

Research Priority:

- Ceramic surface survey.



Plan 16: Loutra Elenis.

LYCHNARI AND VAGIA

The cove at Lychnari once possessed marshes at the west and east end, and possibly more extensive. The marsh at the west end has been obliterated by a gravel quarry. The marsh at the east end has some remnants left but mostly has been infilled. There is healthy vegetation, with mature dense brush, aleppo pine and *pistacia lentiscus*, in this area perhaps indicative of a minimum of landscape modification in the past century beyond the recent filling of the marshes. A small valley at the east end of the cove is heavily covered by cobble. The area has been bulldozed in preparation for seemingly unused house lots. It seems likely that these are the remains of ancient structures, and ceramics, including a probable Bronze Age strap handle were noted in the stone debris. The slope to the SW of the harbor may be a good defensible position, but was not investigated.

The cove at Vagia is a small beach more exposed than Lychnari and subject to strong winds. Sherds are to be located in abundance at the west end. Also at the west end is a recent contemporary structure that seems to be a cistern. Of importance is that the structure sits on an infilled marsh, as confirmed by an extant drainage channel and the 1965 aerial photography. Another protected inlet lies just west of Vagia.

On a small headland situated between the two small coves of Lychnari and Vagia, lies a previously unknown site in a remarkable state of preservation. The site consists of numerous rubble-walled structures of uncertain date, and is littered with artifacts, mainly pottery sherds, of many periods. Paths connecting the site to both coves are visible in aerial photography and may represent ancient routes. At this site one of the periods most strongly represented in the ceramic remains is the Early Helladic (Early Bronze Age) II, which is dated approximately to 2600–2200 B.C. At least two vessel types characteristic of this phase were identified: the so-called "sauceboat," with a long neck or spout, a flaring rim, and a round body; and numerous sherds from coarse ware vessels decorated with a band of impressed clay beneath the rim. The function of the sauceboat is not known with certainty, but it was a fine-walled vessel that would have been part of a household's fine table ware. The coarse vessels were used for storage and serving, and represent the utilitarian ware of the period.

The rubble structures form a small settlement that cannot be assigned to any particular period as yet. Most of the individual units are circular in plan and there is an overall agglomerative character that demonstrates that the inhabitants lived very closely together. Early Bronze Age settlements in the Aegean often do manifest these characteristics, but because remains of later periods are also found on the site, it is premature to suggest that these may be Early Helladic structures.

Some of the collapsed circular structures are more than 5m in diameter and evidence a depression in the center. There are also rectilinear structures averaging 3-4m on a side built of cobbles averaging 0.30m in diameter. No mortar is evident in any of the structures. One structure evidences a doorway 0.75m wide. Roof tile is abundant in what seems to be a local fabric.

Figure 30: Lychnari cove.

Figure 31: Vagia cove.

Figure 32: Lychnari from south.

Figure 33: Collapsed circular structure.

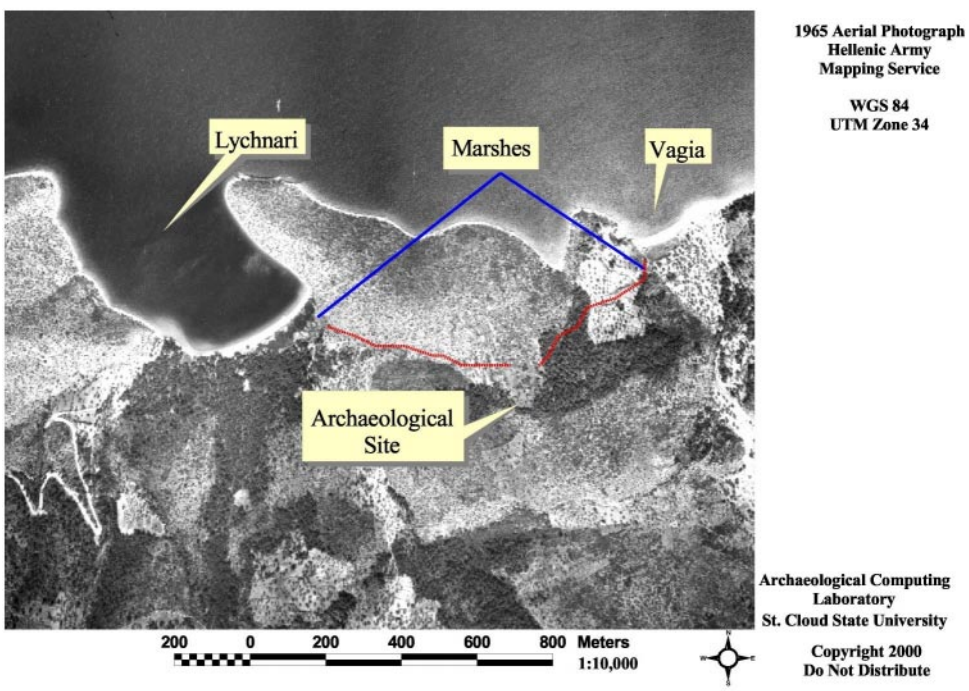
Figure 34: Classical Greek ceramics.

Figure 35: Sauceboat spout fragment.

Figure 36: Intact walls.

Research Priorities:

- Coring in marshes.
- Ceramic surface survey.
- Site mapping.



Plan 17: Lychnari.

MEGALO AMONI

Megalo Amoni is a very pleasant, well-protected harbor with a clear view of the island of Evraionisos. A small mole, probably modern, is located at the east end of the harbor. This contains what may be some rectilinear cut blocks that may be from older structures, but this is little more than speculation. Some sherds are to be found along the beach, as well as Murex shells. One base that was probably classical in date was noted.

Figure 37: View to Evraionisos.

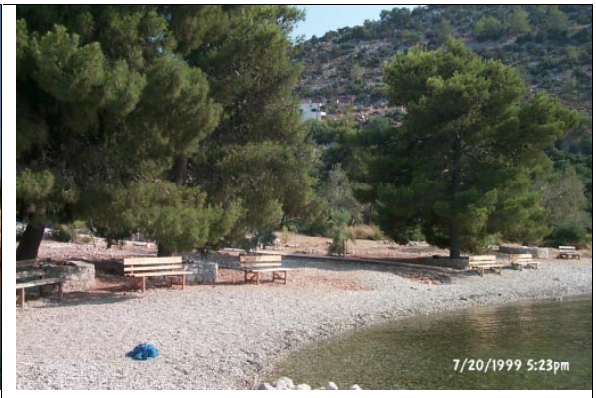


Figure 38: Beach at Megalo Amoni.

Figure 39: Sherds and Murex shell.

Research Priorities:

- Ceramic Surface Survey

MICRO AMONI

Micro Amoni is a small well-protected harbor. Submarine springs are located along both the east and west shore line, with the stronger outflow on the east. The area has been extensively bulldozed, in places to a depth of 2-3m to create a park area and a sunken tennis court. The slopes of the cove are actively being bulldozed into the water to create terracing for houses. The destruction is so extensive that the cove is rapidly being spoiled; anything beyond are cursory archaeological exploration will lead to frustration. Nevertheless sherds can be found along the beach and in the water, especially at the east end of the cove. One 4th-6th century AD spirally grooved sherd was noted.

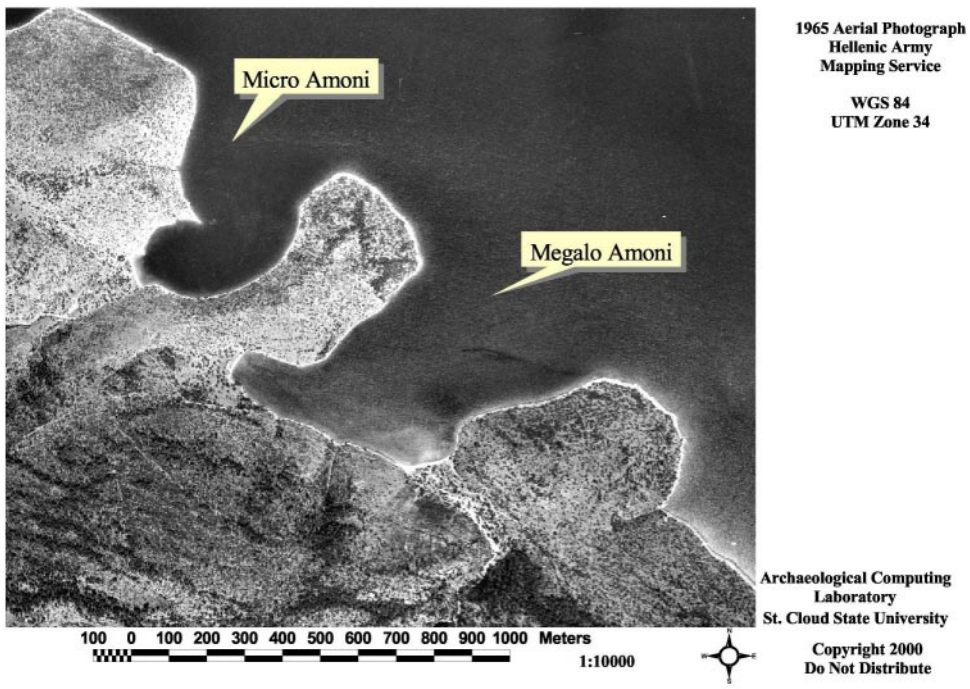
Figure 40: West side of Micro Amoni.

Figure 41: East Side of Micro Amoni.

Figure 42: Sherds, including LR spirally-grooved.

Research Priorities:

- Ceramic Surface Survey



Plan 18: Megalo and MicroAmoni.

NEW KORINTH

A few scattered finds have been reported from New Korinth, but the area is far too built-up to allow for an investigation of this sort.

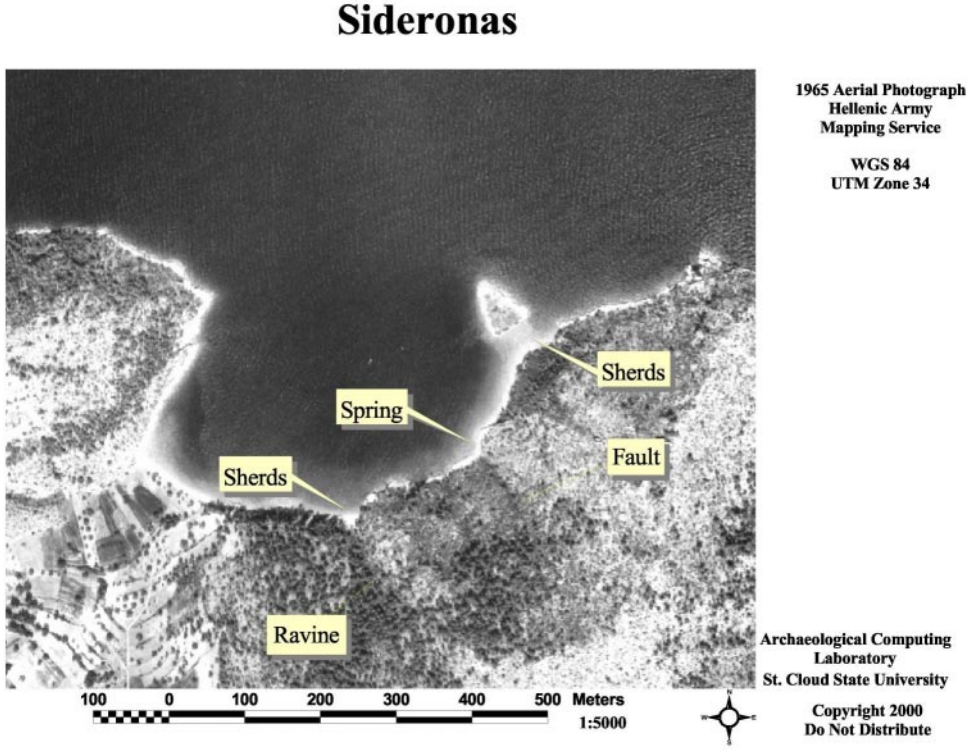
SIDERONAS

Sideronas is a small cove to the east of Kato Almyri. Ceramics and architectural remains have been previously reported at this site. A small island is present at the NE corner of the cove, and remains concentrate on and around this island. Sherds are also present at the SE corner of the cove, where they may be washing down a ravine, as indicated by an abundance of well-sorted pebbles. A fault is found on the east side of the cove accompanied by a freshwater spring and a small cave. The island was created by an antithetical fault.

Figure 43: Sideronas island.

Research Priorities:

- Reexamination of island.
- Ceramic surface survey.



Plan 19: Sideronas.

Core Sampling

Core samples were taken at three sites: Lechaion, Korphos and Kato Almyri. Cores were taken only in marsh areas with a vibracorer. Core samples are desirable to establish the parameters of coastline change, including sea level change, subsidence, and uplift. Textural and sedimentary structures will be recorded and the cores will be sampled for detailed micropaleontological/sedimentological analysis. Foraminifera will be the microfossil used as a paleoenvironmental proxy, since they have proven to be an ideal tool for paleoenvironmental analysis in the earth sciences and, more recently, in marine archaeology. Core analysis is presently in progress under the direction of Eduard Rienhardt at McMaster University. Preliminary results will be available in June 2000. Firstlooks at the cores from Korphos and Lechaion indicate excellent stratigraphic sequences with clear differentiation of coastline change events. Abundant organic material will enable multiple C14 test.

The procedure of taking cores was relatively simple, although extremely labor intensive and time consuming. 3 inch steel irrigation tubes were obtained for sample. A vibracorer was attached with clamps and powered with a portable generator. The vibracorer transmitted vibrations through the tube allowing it to penetrate organic and small-grained sediment layers with assistance from multiple personnel. When maximum penetration was achieved, the core tube was cut off near to ground level, a seal was placed on the exposed end of the core tube to create a suction to prevent loss of material, and a tripod and winch were used to extract the core. Core tubes were sealed, labeled, and sectioned into manageable sizes for shipment.

All core locations were surveyed in for induction into the GIS. Elevation to MSL was recorded, as was amount of compression of material in core sample, and salinity and temperature of water. Surface samples were taken in transects of marsh areas at Korphos (15 samples) and Lechaion (28 samples) to provide a control set of environmental proxies. Surface samples were surveyed in for induction into GIS, including elevation to MSL, and salinity was measured.

Figure 44: Transportation of core tubes.

Figure 45: "Easy" insertion of core tube.

Figure 46: Cutting off sample.

Figure 47: Preparing for extraction.

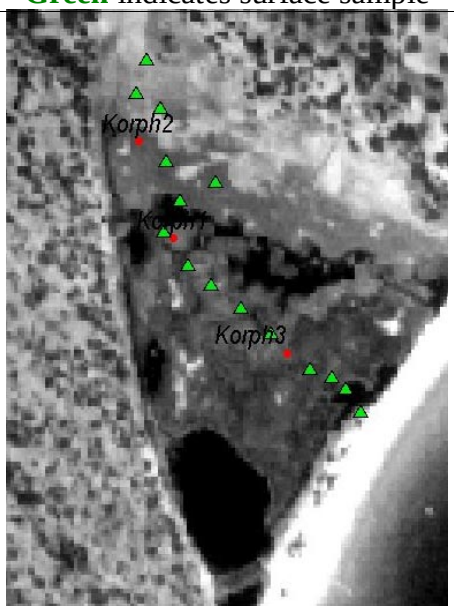
Figure 48: Extraction of core.

Figure 49: Capping of core bottom.

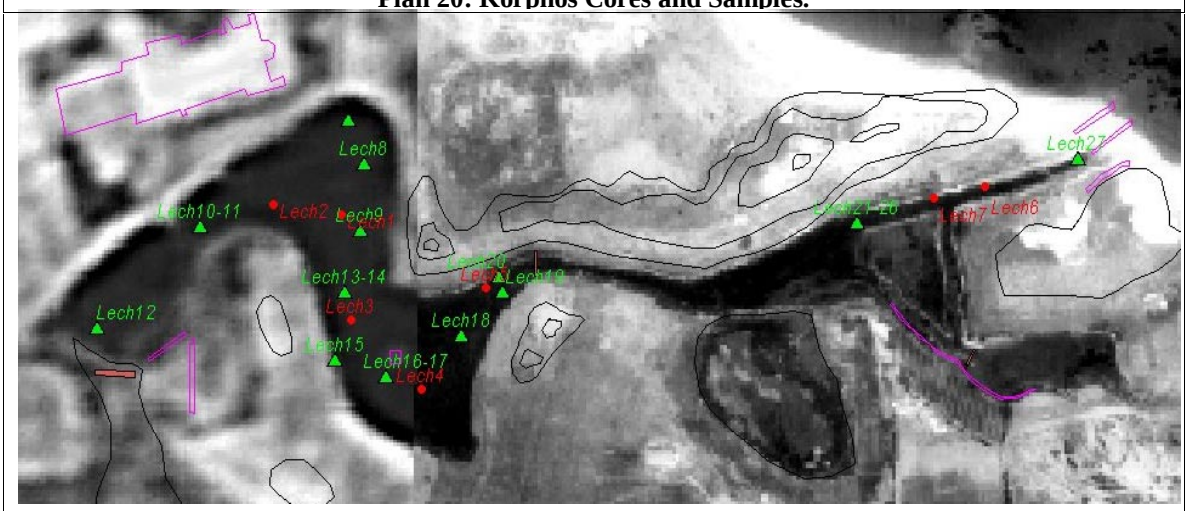
Figure 50: Sealing samples for shipment to Canada.

SITE	NUMBER OF CORES	MAXIMUM PENETRATION
Kato Almyri	1	0.84m
Lechaion	7	2.36m
Korphos	3	1.5m

Red indicates core
Green indicates surface sample



Plan 20: Korphos Cores and Samples.



Plan 21: Lechaion Cores and Samples.

Preliminary Conclusions

After only one season of field work and prior to completion of the analysis of cores taken, it is difficult to come to conclusions. It is clear, however, that the methodology developed works, and that the project can be brought to conclusion with one more field season given adequate support. The utilization of the GIS has forced us to rationalize the way in which we have categorized the usage of the coastal landscape, and in so doing we have identified key characteristics that were desirable in prehistoric and ancient harbors. Most important is the now explicit relationship between marshes and early coastal utilization. If, using the tools of geoarchaeology, we can determine what areas were once marshes, we will have not only found the prehistoric and ancient harbors, but will have moved well toward an explanatory model.

The greatest illustration of our success is the discover Lychnari, the most intact Bronze Age site in the Korinthia, and one that previous searches had missed entirely. It is worth considering the words of James Wiseman, who made an extensive reconnaissance of the Korinthia in the 1960s, about the vicinity of Lychnari/Vagia (1978: 132):

> A search along its beach revealed recent walls and a lime kiln, but no trace of antiquity. The rocky, barren eastern hills and a wretched bog at the same end of the beach may have been sufficient discouragement to the ancient Corinthians. . .There probably was no ancient habitation either in Lychnari or Vayia. . . .

While the modern environment of the area persuaded Wiseman to believe that Lychnari/Vagia may have been unsuitable for human habitation, our explicitly geomorphological perspective cautions us that local conditions may have changed drastically over the millennia; furthermore, we must be mindful of a range of diverse imperatives to settlement that may have made this location of great interest in prehistory. One person's wretched bog is another's beautiful marsh. It is precisely by studying the changing shorelines and patterns of settlement along them that we hope to reconstruct many of the ways in which the not only the interactions between humans and the coast were shaped in the prehistoric eastern Korinthia, but how perceptions were formed and have changed.

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