The great Plain of Sybaris had been under investigation, archaeologically speaking, for almost a century, but it was not until 1960 that a determined effort was made to locate the three "lost cities." A hastily arranged at the vast area to be covered (some 125 km.) convinced one that unusual methods were called for in order to achieve any degree of success. Because the Lerci Foundation of Milan and Rome, and the University Museum were interested in adapting underground search equipment to the needs of archaeology, an arrangement was made with Dr. Giuseppe Fossi, the Superintendent of Antiquities in Reggio Calabria, to begin a general reconnaissance. This continued for the next eight years with Freddy Rainey as field director for both the Lerci Foundation and the University Museum. Like all other branches of scientific research, archaeology has been influenced by new tools developed since the Second World War. In this new order of technology is the use of magnetometers for the detection of deeply buried ruins as well as remote sensing devices for aerial reconnaissance. Multibeam cameras and new, more sensitive film have also proved useful. Helicopters, likewise, were called into use.

For the next five years surveys were conducted on the Plain and an entirely new kind of magnetometer was developed and refined by the Museum Applied Science Center and Varian Associates. This period of refinement led eventually to the success of the project. The details were published in an account, The Search for Sybaris, 1960-1965, completing that phase of the investigations on and around the plain of the Crati River. In this same account were detailed the work of the Lerci Foundation and the results of some fifteen hundred drill holes made during that period. The bits of pottery and tiles brought up by the drills were bagged and sent to Rome for examination. In this way it was possible to confirm what the magnetometer "saw" and what to expect from a subsequent test excavation.

After the completion of this five-year period, in 1965, work continued in 1966 seeking the remains of buildings of the Archaic period on the Crati Plain, using the highly sensitive cesium magnetometer and a ground-mounted drill to test anomalies recorded by the instrument. At this time the cooperative arrangement with the Lerci Foundation was discontinued and the University Museum continued its work through the summer of 1968. Again, during this period, the U.S. Air Force included the Crati Plain with other areas in Italy in an experiment with a new multi-band aerial camera and an infra-red scanning device. The multi-band camera, operating at 12,500 feet, recorded nine different images covering the special range from ultraviolet to infra-red.

A new type of film in the 7000 angstrom range was purchased from Eastman Kodak and turned over to the Aerial Photo Service in Rome. This was used by the Italian Air Force in a second aerial reconnaissance of the whole Plain and surrounding foothills. The overnight was completed in 1968. Unfortunately the remains lay too deep to be detected in air photos.

The magnetometer survey and subsequent drilling focused attention on the area north of Parco del Cavaio and a further site of similar, if not identical, drilling was carried out there in 1964. An examination of the potsherds and a subsequent test excavation of the building walls of the archaic period. At this time were found the first Archaic Greek structures in situ far too well preserved, even by the standard. This region is now called Stombi. Of interest is the fact that the Archaic structures were found at a depth of just over 4 m.

Another promising area was that of Parco del Cavaio first discovered by Eduard Grube in 1928 and subsequently explored by Senator Zonotchi-Bianco in 1932. At this time, a large Roman building was partially uncovered. The University Museum continued the work in 1962 and deep burials proved that there were three levels of occupation in that section of the Plain—Roman, Classical and Hellenistic Greek—as well as Archaic Greek. Close by this region, during the course of the campaign, a wall was traced with the magnetometer for a distance of 1300 m. Test excavations at points along the wall wall exposed an originally 4th century Greek construction, later rebuilt and heightened by the Romans. The wall runs generally parallel to the River Crati and in the area enclosed, the area of the wall and the Crati indicated many building foundations, probably Roman. In 1964 the "long wall" was traced for another 700 m. to termination in the region of Casa Bianca. This bedrock wall is seen in the aerial view on page 13 as the triangular line that lines toward the excavation at Casa Bianca at the far right.

The third and last of the regions that developed into excavations of considerable size, is that of Casa Bianca, the area nearest to the ancient site of the city. The hill records showed the area to be indications of scattered remains of a 4th century Greek pottery and a considerable amount of roof tiles and masonry. This area, and that of the camp in the campaign 1965-1966 were summed up by Friedhelm Rainey in 1969 in the American Journal of Archaeology, Vol. 73, No. 3. The map of buried Sybaris, published at that time, based on magnetometer surveys, drilling and six excavations, is almost entirely up to date by the subsequent Italian excavations. The years of work, financed by Oville H. Bullitt, and carried out by the University Museum, were a team effort.
Today, the once malarial Plain, now a rich agricultural area, drained and irrigated, is soon to be an industrial region with a new harbor, an oil refinery, a chemical plant and other associated industries.

Therefore, in 1968, the Minister of Public Instruction named, on the advice of the Superior Council of Antiquity, a commission of experts, archaeologists, historians and hydrologists, who, flanked by a council of superintendents, studied and put forward a program of collaboration. The Cassa per il Mezzogiorno, Bank of the South, an organization, public and private, concerned with the development of South Italy, had already granted some funds not as yet utilized. Its Tourist Service furnished a gross financing of something over a million and a half dollars, and operations were initiated in 1969.

A series of metallic pipes, drills, well points, drains and irrigation ditches, as well as large suction pumps, was assembled and mobilized. Unusual procedures were indeed necessary since the archeological remains at Parco del Cavallo were over seven meters deep and those at Stombe some four and a half meters. Some experience had been gained by the hydrologists in the excavation of the Temple of Apollo at Metapontum, buried under water in a terrain similar to ours.

STOMBI

The most northerly of the major excavated areas, it lies just north of the Stombe canal and between the beds of the ancient Crati and Coscile Rivers. The area opened originally measured (ca) 120 m. and was subsequently enlarged. The buildings, almost square, were generally oriented on the same axis with foundations of worn river stones, and each had two or more rooms. The most interesting of these was building [F], at one time roofed with curious polygonal, polychrome tiles. Of interest also are two archeic wells.

The numerous statuettes and miniature votive vessels unearthed lead the excavators to believe that this general area was occupied by potters and ceramists as well as other craftsmen connected with a religious community. The presence of wells and three pottery kilns helps to confirm this postulation. Perhaps in these very kilns were fired two statuettes of Athena holding a bouncing goat in each hand, possibly copies of a cult statue.

We have the words of Herodotus as testimony for the existence of a temple of Athena Krathis located on the ancient bed of the Crati near Sybaris. Herodotus is said to have emigrated to Magna Graecia with the Thurian colonists and thus had on-site knowledge of the temple.

From the fallen roof tiles in building [F] came an archaic, or portable altar, depicting two panthers attacking a wild boar. Similar examples have been found at Locri and Mograra Hyblea in Sicily. They are from the end of the 3rd quarter of the 6th century.
From a disturbed stratum in the eastern limits of the Stombi area we have further evidence of a religious cult in the form of a pectoral. Originally half-moon in shape, one half is preserved, plus numerous fragments. Of thin gold leaf decorated with lotus flowers and palmettes, the form is thought to have originated in Asia Minor where the commercial routes to South Italy and Etruria began. It does not seem to imitate either Attic or East Greek productions and is probably local. The lotus and palmettes are of a type found in terracotta reliefs and there is some thought that the inspiration for these forms came from Corinth. In any event, the excavators believe it once adorned the robe clothing the statue of a divinity, and came from a room of a cult building. The dating is given as between the last of the 7th and the beginning of the 6th century. The pectoral at present is in the Central Institute of Restoration in Rome.

Among the larger ceramics found in Stombi are a fragment of a calyx crater and the rim and neck of an amphora. Both are of Attic Black Figure ware and date to the 2nd quarter of the 6th century. The crater is decorated in two zones: above, a horseman carrying a javelin accompanied by a hunting dog; below, a frieze of animals. On the amphora is a representation of a battle scene.

Thus at Stombi, probably on the northern periphery of the city, we have some fragmentary evidence of the opulence legendary of Sybaris, which has been described in so much detail by many of the ancient writers.

**Parco del Cavallo**

The excavation located about 2 km south of Stomni was first opened to an extent of 200 x 150 m. The superpositioning of the habitation levels spoken of in literary sources is demonstrated here by the archaeological evidence in a non-controversial manner.

The principal monument of the uppermost or Roman level is a building, semi-circular in construction, and from the evidence, erected in the middle of the 1st century B.C. The nature of the building in this first phase, whether a monument or a meeting place, is uncertain. However, about a century later, it was transformed into a theater, with the addition to the original plan of a scene building, three apses and a cavea. In front of the theater at the south there was a rectangular square or piazza, ornamented with two circular fountains. The area seems to be dateable to the 2nd century A.D. and encroaches on the roads of the earlier city of Thurii. To the east and the west are habitation levels that were occupied by Rome for some eight centuries; that is, from the 2nd century B.C. to the 6th century A.D. Underneath this, in turn, is the urban network of roads, streets and alleys of the Athenian colony of Thurii represented by the cobbled areas on the plan. In the aerial photograph the Roman complex is shown built over Thurii whose streets are shown by the dotted lines. The measurements, appropriately enough, are in Attic feet, one half inch shorter than ours.
The archaeological evidence from the author's excavation at Terre del Mordillo, some 17 km. to the west, is that the Romans took Thurii by storm in the waning years of the 3rd century. At that time they were pursuing Hannibal and driving him from Italian soil. If the treatment they afforded the city of Capua in the year 194 B.C. is any criterion, they showed the Thurians no mercy and murdered all those whom Hannibal had left behind. Excavations in Parco del Cavallo indicated that when the Roman colonists arrived they simply moved in and utilized the network of roadways and housing. Over the succeeding years they modified the housing to suit their own needs and adapted it with terraces as well as frescoes and mosaics. In the foundations of the Roman theater numerous blocks of an archaic building, no doubt a temple, were located. As may be seen in the photograph they are of various dimensions and came from various parts of the ancient building such as the Euthyneria or leveling course of the temple platform and from blocks separated from the cells themselves. The cells would be the enclosed chamber or sanctuary of the temple. Some of the blocks most certainly came from the cella itself. The cella would be the triangular termination of a ridged roof. The triangular wall in turn is called the tympanum. The wall is divided into archaic letters, some upside down, indicating that the stones were not in their original position. These letters had served as a guide for the Sybarite stonemasons and had been placed there on orders from the temple architects. Above and on each side may be seen the remains of Roman buttressing. Another photograph shows some of the frieze blocks with the figures chiseled off, placed between other blocks of the archaic building. One is visible, but two more are in the shadows. Bits and fragments were recovered in the fill and are parts of bodies both human and animal that represented some sort of pagantry. Traces of coloring in red, yellow and blue indicate that the frieze must have indeed been spectacular.

The people of the island of Sikinos, rich in gold and silver mines, dedicated a Treasury at Delphi, datable to 530 B.C., with a similar frieze. Another comparison has been made on the archaic temple at Samos because of the superpositioning of blocks and the continuation of the figures from one block to the one below.

Also salvaged were precious bits of the entablature of the temple both architectural and decorative. These include mouldings, bits of triglyphs carefully wrought, showing strong Ionian influence. Lack of space prevents us from elucidating the finer details such as the unusual form of the triglyph frieze which stood below the figured pediment. However, we may say without doubt that this is the famed Hera Temple of Syracuse datable by the evidence to about 530 B.C.

It would be superfluous to exult over the importance of the discovery of an Ionic sculptured frieze. It is enough to record that it is the first to be found in the West and is among the oldest in the Greek world. The architectural remains are currently undergoing restoration either in Rome or at the National Museum in Reggio Calabria. One is not surprised that the ambitious Sybarites, in continual contact with the eastern Mediterranean, adopted and accepted the mode and expressions of Ionic taste. Unfortunately it would seem that less than a generation after its completion, the city and its beautiful works of art fell prey to the forces of nature and was destroyed by some catastrophic force, perhaps a tidal wave. It is the considered opinion of the excavators that it was nature and not man (the Crotoniates) that destroyed Syracuse.

The archaeological evidence points to a more leisurely departure than one which would be necessitated by war and conquest. It would seem that the inhabitants at least had the opportunity to pick and choose what possessions they wished to take with them, leaving behind only those broken articles which could not be mended. This excludes the votive deposits in the cult places where whole pots were left. The story of the conquest by the Crotoniates, led by the famed Olympic athlete Milo, seems to have been merely boosterish over the conclusion of a murderous trade rivalry with the demise of Syracuse. This trade rivalry was old at the time of the Sybaris-Crotome conflict. In the 6th century, Chalceis and Eretrea were the two main cities on the island of Euboea, just off the coast of Attica. They were great manufacturing and trading cities as well as colonizers. Chalceis in particular being famous for its pottery. Eretrea was destroyed in the early 4th century B.C. at Corcyra (modern Corfu) and Chalceis founded a colony at Camae in southern Italy as early as 760 B.C. and slightly later colonized Naples. Pompilia and Rhegium (modern Reggio Calabria). They became involved in a conflict over a fertile area known as the Lelantine Plain. This enabled Croton to seize the opportunity to expand her own trade. In doing so she encouraged colonization by people like the Achaeans in such places as Syracuse, Metapontum and Crotome. Croton wrested Corcyra and
Syracuse from the Etruscans and Chaldaeans in 733 B.C. With the establishment of Sybaris, Corinth now had an active companion in the lucrative trade with the Etruscans as well as the colonies in Sicily. Sybaris quickly established towns and cities, running out to the opposite side of the peninsula, to establish ports and trading posts. She apparently soon subdued the local inhabitants but assimilated and absorbed into her own culture metal workers and other artisans. Thus we must speak of the Sybarites not only as luxury loving people living an indulgent life, but as active traders and manufacturers serving as a vital link between the East and the West, transporting and diffusing not only imported goods but those of their own manufacture. This applies to metalware as well as ceramics and statues. Products of an active mining industry must also be taken into consideration.

The rare graffiti give certain reference to the Achaeans language of the time, while the different fabrics found, briefly examined, assure the character of the commerce. It is noteworthy that in the first season alone (1969) over 15,000 items were catalogued and recorded so that many years of study lie ahead.

It seems certain that a Corinthian environment existed for all of the 7th century but with some participation by East Greeks. In the second half of this century there began an interest in Athens products, documented by sporadic finds of amphorae of a type which also appears in Etruria in tomb finds of the same period.

The most prosperous period of Sybaris seems to have been from the last of the 7th century to the middle of the 6th. In 540 she formed an alliance with Carthage and Metapontum to destroy another Greek colony, namely Siris, located between Metapontum and her own territory. Siris had come to prosper in the lucrative trade with the western colonies and thus had to be eliminated by the Alliance. At the same time an arrangement was made with Sardinia to prevent interference with the northern sea routes to Tuscany. In order to protect herself on the southern flank, a treaty was signed with the Sybarites, presumably a local tribe living in the area modern Cosena. Toward the end of the century the Sybarites are said to have dominated four tribes and twenty-five towns.

However, the great Phoenician city of Carthage in North Africa was now coming to power. From about 600 B.C. it was clear that rival claims to control the great islands must lead to war between Etruscans, Carthaginians and Greeks. The westward thrust of the Greeks was crushed by the Etruscans and Carthaginian fleets at Alasia in Corsica in 533 B.C. Carthage gradually established its influence in Corsica and Sardinia. Etruscan power gradually weakened as did that of Sybaris whose economic power seems to have almost collapsed in the last quarter of the 6th century.

To return to the excavations at Parco del Cavallo, deeper probes were made beneath the Roman theater, unearthing a series of rooms which gave a complete stratification, and revealed the history of the city through its pottery. The presence of many cups and votive offerings leads to the speculation that this area was devoted to the priests of the cult of Hera. Among the finds were fragments of a finely done Alcic black-figure amphora, datable to 540-530 B.C., with a representation of a warrior or hero driving a quadriga, leaving perhaps for battle. Only two other examples of this theme as presented have been located, one an amphora at Monaca, the other an oinochoe at Palermo. Perhaps the most exciting find in Level E the amphora was found in association with some fragments of the finest pottery Athens had to offer in this period, again reflecting the opulence of Sybaris.

For trade connections other than Athens, we present fragments of a cup of the Thapsos type, 750-725 B.C., a portion of a Rhodian oinochoe of ca 700 B.C. and a sherd of a cup from Naucratis (Egypt) datable to the 7th century. The chronology of the pottery recovered at Parco del Cavallo should be as follows:

- Cup of Thapsos: middle of 8th century
- Proto-Corinthian skyphoi and pyxides: 7th century
- Corinthian alabastron: ca 600
- Corinthian plate: ca 570
- Attic amphora and cup: 550-530
- Lacedon cup: 550-530
- Attic cups and oinochoes: 520-510

Here there is a break due to the inundation of the archeal city, to be picked up again, as follows, with the founding of Thurii:

- Attic black glazed and Red Figure: 440
- Tarantine pinax: 440
- Proto-Dubbo crater: 425

The cup from Thapsos cannot be dated later than 725 B.C., which leaves a slight gap between it and the founding of Sybaris in 720. The founding of Thurii in 443 is thus confirmed by the archaeological evidence.
1. Excavation at Casa Bianca from northeast. The naval slipway is in center. At right center, Roman funerary buildings cover part of slipway. At left, the Long Wall is covered by awnings for protection.

2. The naval slipway or slipway of Thurii plan and section. The circular structure at the top right is a tower, perhaps lighted at night.

3. Modern slipway at Taranto.

4. Aerial view from the northwest: Parco del Collegio at far left with its continuation at right center. At far right, the naval port of Thurii, Casa Bianca, where the Long Wall meets one of the main Thurian roads.

Suggested Reading:

CASA BIANCA

The port area of Sybaris, Thurii and possibly Copia Thurii (early in its history) lies at the eastern end of one of the Hippodamian roads. An aerial photograph shows the beginning of the road at far left where it meets the large north-south road. It passes in front of the theater complex and through a Roman block of housing to meet the so-called Long Wall angling down from top center at Casa Bianca, far right. The Long Wall extension as mentioned previously was traced over a number of seasons by the geo-magnetic instruments of the University Museum. The function and dating of the wall has been a point of controversy but it can now be reasonably stated that it was the enclosing wall of Copia Thurii and is datable to around the end of the 2nd century A.D. The intersection of the wall and the Hippodamian road is about in the center of the excavation, originally some 70 x 55 m. and subsequently enlarged. The main archaeological edifice has been termed a naval slipway. The photograph shown here places the wall and the slipway in proper perspective. The Long Wall, covered by awnings for protection, is at the left and the slipway at center. A modern version of the same type of slipway may be seen at Taranto.

A group of vases found on the north edge of the circular structure on the plan are datable to an epoch prior to the end of the 4th century. A change in the hydraulic conditions caused by the receding of the coast line in the 1st century A.D. brought some alterations in nearby structures and probably the abandonment of the port area. There is some thought and evidence that at one time there was a man-made canal connecting the Cosale and Crati Rivers for bringing the boats to the slipway.

A photo of the external north side of the Long Wall shows it to be in part constructed with pieces and blocks of older monumental buildings. In the foreground are some blocks used indifferently as covers for poor tombs in the declining years of the Roman era, datable by a coin of the Roman Emperor, Gordian I., to A.D. 238.

The use of this section as a burial place is further evidence of the Long Wall being the enclosure of Copia Thurii. By the same token, no traces of the Thurian and Sybaritic walls have been found, which leads us to believe we must search further to the north for the Greek necropolises.

Since returning from Italy in June of this year, I have received a message from a member of the Committee to the effect that the fortification wall of Thurii has been found and that much more material has been unearthed at Casa Bianca. So, our knowledge of Sybaris grows on almost a daily basis, and what tremendous progress has been made since the days of the early 1960's when Fro Rainey first called me to "come on over and help us find Sybaris."
Site of Sybaris. Area between long wall ("Muro Lungo") and zone of archaic structures appears blank because only one small magnetometer grid was made here. Drilling, however, produces sherds at the archaic level throughout the area.