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## U.A.S. Newsletter, no. 75 (May 26, 1961)

Editors(s): Dee F. Green, Ray T. Matheny, and Lawrence O. Anderson

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# U. A. S. NEWSLETTER

Number 75

Editor: Dee F. Green

May 26, 1961

Assistant Editors: Ray T. Matheny and Lawrence O. Andersen

Published approximately every six weeks by THE UNIVERSITY ARCHAEOLOGICAL SOCIETY at Brigham Young University, Provo, Utah. The purpose of the Newsletter is to disseminate knowledge of recent archaeological discoveries bearing on the Latter-day Saints scriptures; also of the archaeological activities and viewpoints of the Society and its members. Subscription by membership in the Society: three dollars per year; or Life Membership, fifty dollars. (Membership also includes subscription to other publications of the Society and of the BYU Department of Archaeology.)

75.0 SIXTH EXPEDITION RETURNS. The Sixth BYU Archaeological Expedition to Middle America recently returned from Campeche, Mexico, after completing a nearly 8,000-mile trip. Department archaeologists brought back many thousands of potsherds and other artifacts for processing and study.

The collection includes artifacts from Aguacatal and other sites of the Xicalango region of Campeche, as well as sherds collected from various other sites of Middle America such as Tula, Mitla, and Teotihuacán, which were visited in order to broaden the background of the student members of the expedition. Visits were also made to various archaeological museums including the famous ones at Mexico City, Jalapa, and Oaxaca.

The expedition was a continuation of a series conducted by the BYU Department of Archaeology since 1948. The Department is particularly interested in using archaeology to solve problems in the ancient history and geography of Mesoamerica--for example, in the current series of expeditions, the problem of the location of the ancient city or cities in the Xicalango region called Tulán-Zuiva and Xicalanco in the early chronicles. (For the meaning and importance of the place-name Tulán in these sources see, e. g., Newsletter 22.02.)

The ruins of "Aguacatal" in the Xicalango region were chosen as the principal site for the 1961 investigations because they are in the approximate location of the city Tulán-Zuiva or Xicalanco as referred to in early itineraries, also because it was thought they might represent a walled city such as Tulán-Zuiva seems to have been, and because work there (see UAS Bulletin 3 and Newsletter 46.0, 47.0, and 48.0) indicated that the period of occupation comprised that of Tulán-Zuiva.

The 1948 expedition, conducted by Dr. M. Wells Jakeman, consisted of the discovery of a large earthen wall running roughly east and west (now called the Transverse Wall; see map); the sketch-mapping of some of the mounds south of this wall; ceramic test trenches; and a brief reconnaissance of the immediate area to try

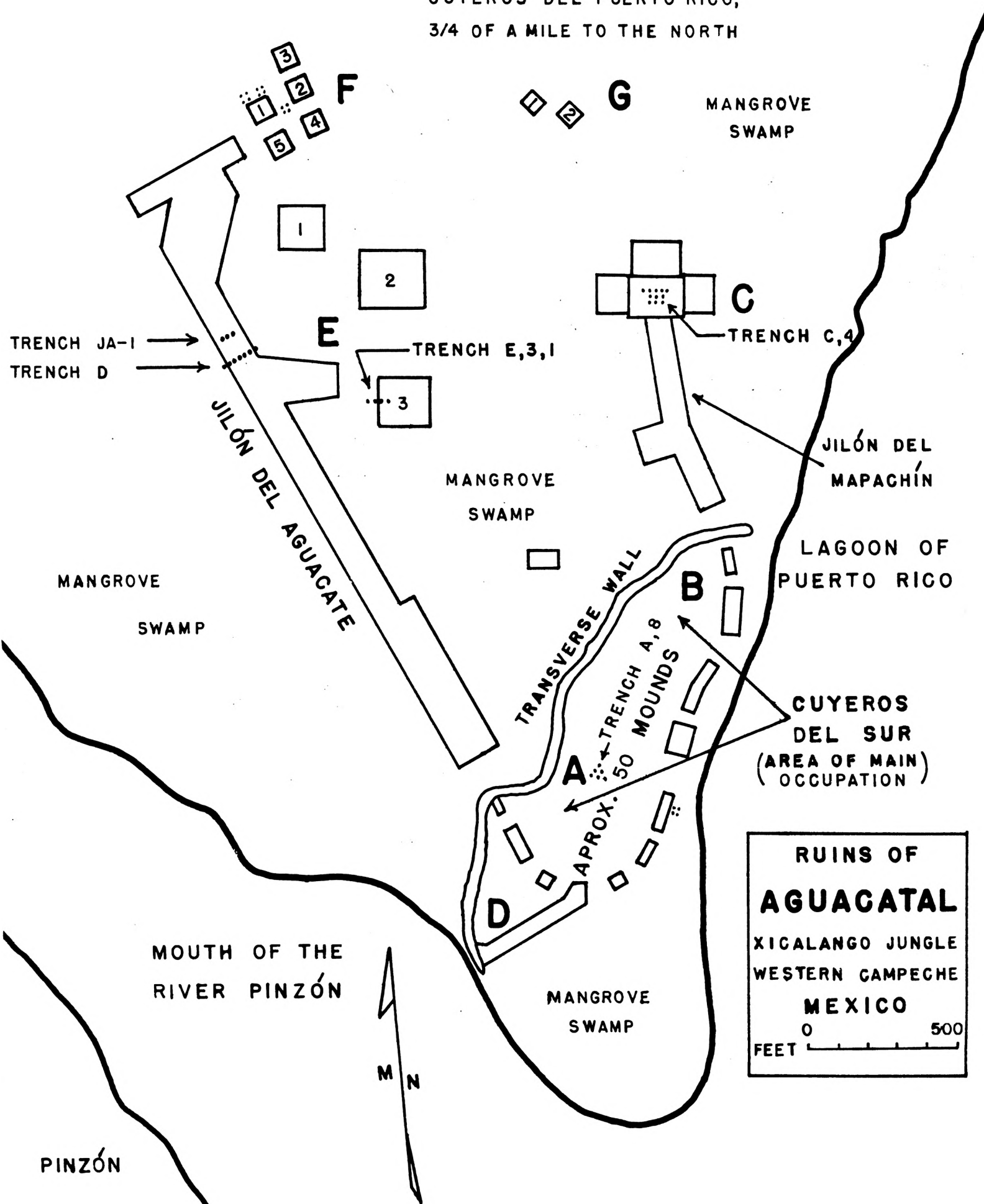
and establish the extent of the site. Dr. Jakeman made a careful study of the pottery obtained from the 1948 explorations and decided that the site could be considered a good candidate for the ancient city Tulán-Zuiva of the Chronicles. (Not only was it occupied in the "Protoclassic" period around the time of Christ, but also in the Late Classic and Toltec periods of the historical references to Tulán-Zuiva.)

In 1956 Dr. Jakeman led the fourth BYU expedition to Mexico and Central America, which included a reconnaissance of the ruins of Cerrillos in the Xicalango region west of Aguacatal, as another candidate for identification as the ancient city of the Chronicles.

In 1958 Dr. Ross T. Christensen led the fifth BYU archaeological expedition to Middle America, which resumed the exploration of Aguacatal. During this campaign a very large wall-like structure, called the Jilón del Aguacate, was found. It extended northwest for nearly half a mile (see map). On the west side of this structure there is a swamp heavily forested with mangrove trees. On the east side are projecting platforms and a few large mounds. Several hundred meters to the east a similar structure, called the Jilón de Mapachín, was found running almost parallel. It was uncertain in 1958 what lay to the north, but it was postulated that the wall-like structures continued on around to enclose the site; i. e., that not only the ruins south of the Transverse Wall but also the large area of ruins to the north were enclosed by a more ancient defensive wall.

The 1958 expedition concentrated on cutting test cross-trenches through the Transverse Wall, and on excavations in a plaza surrounded by a group of mounds south of that wall (Group A), in a temple court at the base of three large pyramids at the end of the Jilón de Mapachín, and in platforms at the south end of the site (Group D)--the first of which uncovered a burial and jade beads, and the latter two, a sculptured cement altar and a finely sculptured human head of cement. A Mexican engineer was engaged to map the southern

CUYEROS DEL PUERTO RICO,  
3/4 OF A MILE TO THE NORTH



**RUINS OF**  
**AGUACATAL**  
XICALANGO JUNGLE  
WESTERN CAMPECHE  
**MEXICO**  
0 500  
FEET

part of the site below the Transverse Wall, which was found to contain approximately 50 large mounds. This party brought back several thousand sherds and other artifacts for study at the University (Newsletter, 56. 0.)

It was decided that another exploratory expedition was necessary to confirm or refute the hypothesis that a walled city existed at Aguacatal in the time of Tulán-Zuiva, since the 1958 expedition did not provide any positive conclusions as to the extent of the newly-discovered wall-like structures or their date of construction. Consequently an expedition was put into the field this year--the sixth from BYU to Middle America, as previously mentioned--under the direction of Dr. Jakeman, with Carl Hugh Jones as assistant director, Ray T. Matheny, M. Harvey Taylor, and Lawrence O. Anderson as student assistants, Eduardo Martínez as surveyor and cartographer, and Hayward Baker, a dewatering specialist. For the actual work of digging and jungle clearance, a crew of ten to twenty native workmen were employed. (See also Newsletter 73. 0.)

75. 00 The 1961 Expedition. Preliminary report by expedition director and staff members.

Before going into the accomplishments of the 1961 expedition, it may be proper to answer a question that has possibly arisen in the reader's mind. Why does it take so many trips to learn what is at Aguacatal and other sites in the Xicalango region? The answer is that the terrain and other natural conditions greatly handicap archaeological work in this region. The area lies in approximately 18 degrees latitude which is well below the Tropic of Cancer and in a heat belt. Precipitation is in excess of 80 inches annually and explorations can be made only during the dry season, generally January through April. Dense jungle covers most of the region. (Xicalango is considered a light tropical rain-forest area, characterized by deciduous and semi-deciduous trees and thorn plants.)

The ruins now called Aguacatal are located on a peninsula, with the Gulf of Mexico a few miles to the north and fresh water lagoons and a wide river bordering it on the east, south, and west. The peninsula is slowly sinking, which has caused the water table to rise, and large mangrove swamps now cover much of the area. These swamps in turn give rise to hordes of mosquitoes which become unbearable by the first of May.

Because of the dense jungle growth, ground reconnaissance is extremely difficult, necessitating machetes to cut down the vegetation in order to walk even a few yards. The growth is so thick that one cannot see an archaeological ruin unless he is a few feet from it. Some areas cannot be explored at all because of the depth of swamp water. Poisonous snakes abound, also certain trees that exude a poisonous sap causing pain-

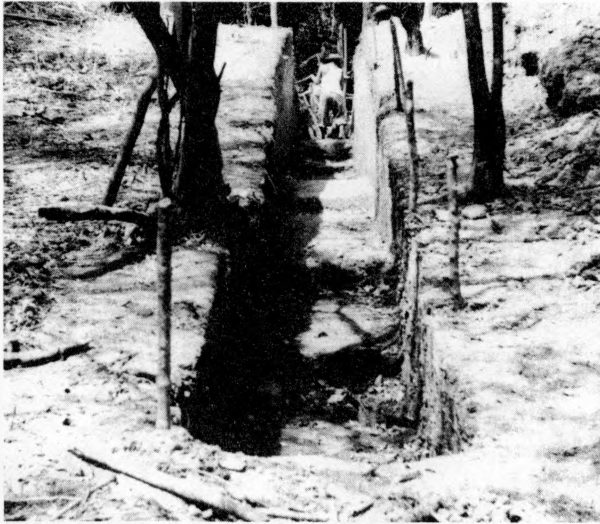
ful rashes and swellings; these are special hazards facing the explorer, not to mention the diseases prevalent in this tropical region.

All the above factors have combined to hinder progress in the archaeological exploration of the Xicalango area.

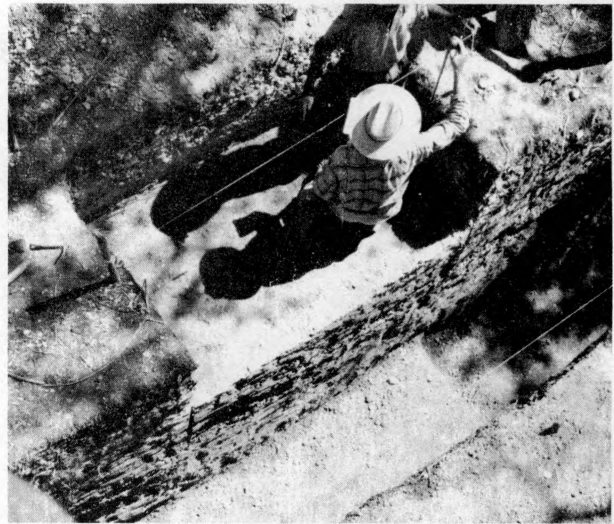
The 1961 expedition was interested in answering such questions as: the full extent of the site of Aguacatal, the location and relationship of its various structures, whether the wall-like constructions entirely surround it, and the complete chronology of its occupation. This information was needed for future planning, especially if any large-scale excavations were to be undertaken there. Following are some of the specific accomplishments of the 1961 campaign:

1. The discovery of additional groups of mounds in the northern part of the site.
2. The clearance of several working areas by macheteros.
3. A topographic survey and mapping of the entire site.
4. Cross-trenching of the Jilón del Aguacate (Trench D on the map).
5. An exploratory trench into one of the very large mounds of Group E.
6. Completion of the exploratory trench in the court at the end of the Jilón de Mapachín.
7. Dewatering and completion to virgin soil of a deep test pit in Group A and Trench D.
8. A ceramic test pit in one of the large platforms at the southern edge of the site.
9. An aerial photographic survey of the site and vicinity of Aguacatal and other known sites of the Xicalango region.
10. The discovery and reconnaissance of a new site to the north of Aguacatal--a large group of mounds called Cuyeros del Puerto Rico.
11. Further ground reconnaissance of the Xicalango region, including a reconnaissance of the known Aztec-period site of Atasta west of Cerrillos.

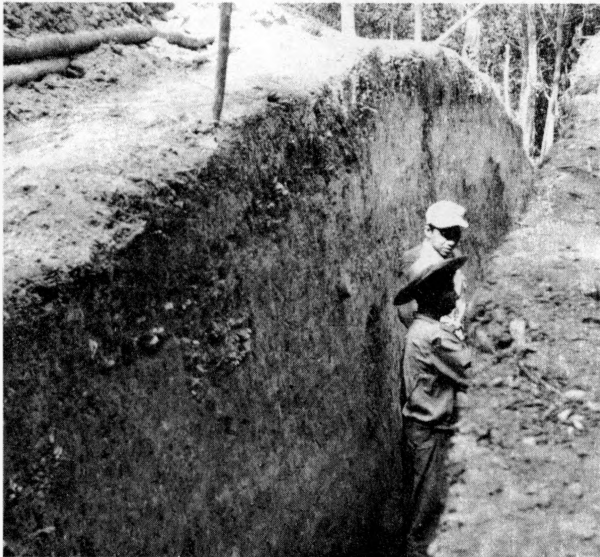
The stratigraphic trench in the Jilón del Aguacate (Trench D) was put through the entire jilón from "swamp to swamp," giving a complete cross-section of the structure. Pumping operations were begun at the west end of this trench, and continued without stopping for 13 days. This permitted excavation to sterile soil or some 2.5 meters below water table. (Water flow in the sump at the west end of the trench was 32 gallons per minute or nearly 2,000 gallons an hour. This was enough to have filled the entire trench in a few hours.) This is believed to be the first time in the history of Mesoamerican archaeology that an attempt has been made to get down to virgin soil several feet below water table, by means of dewatering equipment.



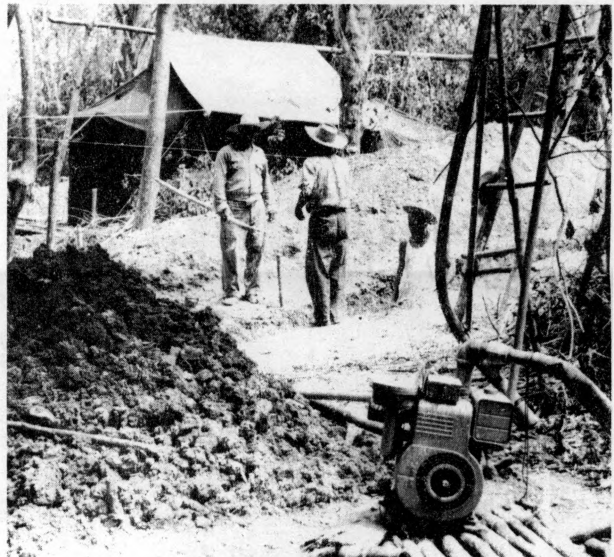
Looking west through Trench D.



Trench D and Square 6-A.



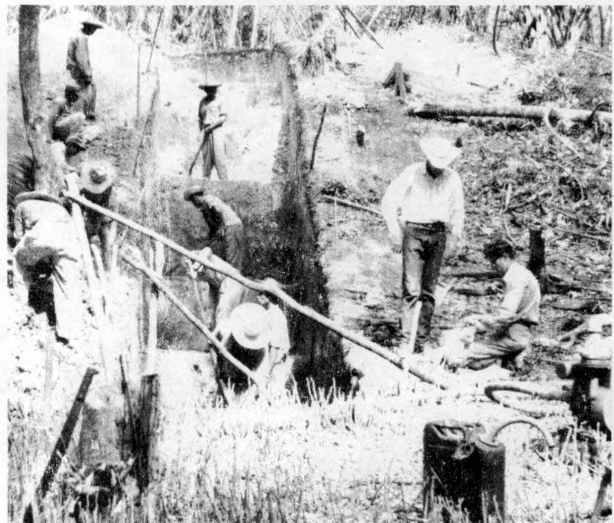
Profile of Trench D.



Pumping operations at Trench D.



Digging the sump in Mound E-3.

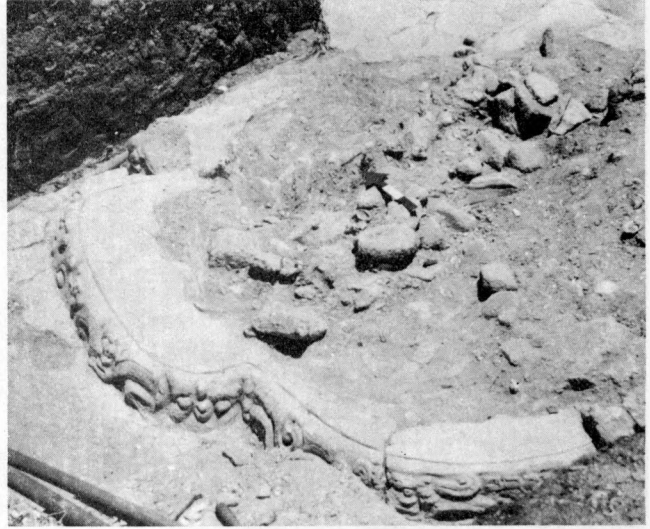


Pumping Trench 1 in Mound E-3.





The sump in Trench D.



The stucco altar in C-4.



Detail of the stucco altar, C-4.



Trench 1, Mound E-3.



Detail of the stucco altar, C-4.

Mound E3 east of the Jilón del Aguacate was tested by trenching from the top down to virgin soil and west to a plaza area. The pump again enabled excavation to go deep below water table. This trench produced the greater part of the cultural material brought back for study. The pottery obtained was carefully bagged and tagged from 50 cm. levels to ensure a stratigraphic record of pottery sequences.

The completion of the exploratory trench in the Jilón de Mapachín revealed that the sculptured cement altar partly uncovered in 1958 extended more than 2.5 meters in diameter, but is not round as originally supposed but rather clover-shaped; also several hieroglyphs adorning the sides, along with scroll designs and jaguar faces.

An extensive aerial reconnaissance of the site was made by using an aerial camera mounted for vertical photography. A light Mexican aircraft was rented and flown over a predetermined grid pattern by expedition member Ray T. Matheny. The rear door of the plane was removed and the photographer held the camera in a vertical position and took pictures at regular intervals to insure complete coverage of the site. Aerial coverage was made of the entire Xicalango region including all known sites. The photographs reveal the mounds and jilones quite clearly, as they were taken at the height of the dry season when color differences in the vegetation are sharpest. This aerial survey, supplementing the ground topographic survey, will make possible an accurate, detailed archaeological map of Aguacatal and the Xicalango region. It has also produced a surprise: indication that the sites of Zapotal and Cerrillos may be as large as Aguacatal!

Discovery of a new site adjacent to Aguacatal was made by expedition members while on ground reconnaissance. This site, called Cuyeros del Puerto Rico, consists of a group of some 30 mounds about one-half mile north of Aguacatal, that run in a shallow arc to the Ejido del Puerto Rico. Since this discovery was made during the last few days of operations, it was only possible to sink two test pits into two of the mounds. Preliminary ceramic identifications indicate a Classic-period occupation.

Complete results of the expedition, of course, will not be known for several months. All cultural and other material brought back must be processed and studied before any positive interpretations can be made. This material includes upwards of 50,000 potsherds, which will require months of study; hundreds of other objects of baked clay; numerous stone artifacts; and organic materials such as human and animal bones, and charcoal samples which may provide radiocarbon dates. Botanical specimens were also obtained and must be identified. Soil samples from all depths

tested were taken and remain to be analyzed. Many archaeological features were recorded at Aguacatal, such as temple pyramids, house foundation platforms, cisterns, and burials, all of which must be checked as to mapping and description. The ancient cement-making and sculpturing techniques at this site must also be studied. Only when all this post-expedition work has been completed will we know exactly the contribution of this year's campaign to our knowledge of the ancient city represented by the ruins of Aguacatal.

As tentative conclusions, however, the following may be stated.

In the first place, most of the pottery obtained at this site, in this as well as the previous seasons, appears to be of Late Classic date (c. 600-950 AD), though some is of Protoclassic and some of Toltec and Aztec date (c. 100 BC [?] - AD 300 and 950 AD-early 16th century, respectively). In other words, the Late Classic seems to have been the main period of occupation and prosperity of Aguacatal--which is significant in connection with the original purpose of the BYU expeditions to this region, for the Chronicles indicate that this was also the period of greatest importance of the ancient city of this region called Tulán-Zuiva. This chronology would also seem to equate Aguacatal with the Aztec-period city of Xicalanco (a name that is probably a Nahuatl translation of the Mayan name Tulán-Zuiva), especially since the written sources locate this city--the capital of the region--approximately in the location of Aguacatal.

Another observation we may make here is that the jilones or wall-like constructions discovered in 1958 do not appear to have formed (with other such constructions) a defensive wall encircling the site. Instead, the pottery so far found within them, their great width, and their utilization as foundation platforms for many other structures, indicate that they were largely or entirely constructions of the Late Classic period to provide additional building space for the growing city, elevated above the encroaching swamp waters.

The southern part of the site, however ("Cuyeros del Sur" on the map), may be held to have been a walled city by itself; at least there is a definite wall of earth on the north and west--the Transverse Wall--which could have had a defensive purpose (it may anciently have been surmounted by a timber palisade, such as is known to have encircled some towns of Toltec and Late Maya times in Yucatán). On the south and east, of course, this part of the site already had natural defenses in the nearby lagoon waters in those directions. Another possible interpretation is that the Transverse Wall was constructed merely to keep out swamp waters from flooding this southern part from the Ensenada. (In fact this entire area south of the wall appears to have been built up continually to keep it free - as the main habitation area--from encroaching water.)

Whatever the purpose of the Transverse Wall, however, it now appears that the part of the site it encloses was the original and main part of the ancient city, dating back to the Protoclassic period.

75.1 THIRTEENTH ANNUAL SYMPOSIUM. Publication of the papers delivered at the Society's Thirteenth Annual Symposium on the Archaeology of the Scriptures is underway, and it is planned that Society members will each receive a free copy.

The symposium was held on the BYU campus April 1, 1961, under the joint sponsorship of the Society and the BYU Department of Archaeology. Total attendance was 65 persons, including 41 Society members.

For many, the highlight of the day was the remarks of Dr. Earl C. Crockett, academic vice-president of BYU, who announced an intensified program of archaeological research to be conducted by the University.

He mentioned that last June a trip to southern Mexico was made by Elders Mark E. Petersen and Marion G. Romney, general authorities of the LDS church; Dr. Ernest L. Wilkinson, president of BYU; and Mr. Joseph T. Bentley, University comptroller. This group returned full of enthusiasm and subsequently prepared a 90-page report that was presented to the First Presidency of the LDS Church.

As a result, the Church has pledged itself to a continuing program of field research which will be directed through Brigham Young University, and a sizable appropriation has already been made for this year.

It was stressed by Dr. Crockett that the information obtained in this research program must be handled with strict scientific objectivity, and all publications are to be free from any scriptural interpretations. Such interpretations are to be left to individuals, societies, or perhaps the general authorities themselves.

The First Presidency has appointed a board to supervise the research program, consisting of Elder Howard W. Hunter (chairman), Elder Mark E. Petersen, Elder Marion G. Romney, President Ernest L. Wilkinson, Vice-President Earl C. Crockett, Mr. Joseph T. Bentley, Dr. M. Wells Jakeman, and Mr. Thomas Stuart Ferguson.

Dr. Crockett listed three reasons for believing that great progress would be made in archaeology at BYU in the near future: 1. Our religion encompasses all truth in all fields. Beginning next fall, greater research opportunities for faculty members in general, including those in archaeology, will be provided. 2. We are interested in finding out what we can about the history of the American Indian, whether such

findings throw light on the Book of Mormon or not.

3. We have in the Church a deep and fundamental interest in getting together all the proofs we can of the Scriptures.

75.2 SOCIETY PUBLICATIONS LIST. Following is a list of eight publications presently on sale by the UAS. They can be ordered by writing directly to the UAS c/o the Department of Archaeology, BYU, Provo, Utah. In every case, two prices are quoted, the first being the reduced price to Society members and the second that to non-members.

Bulletin of the University Archaeological Society, No. 4, March, 1953. 52 pp. Single copy free; \$1.

Miscellaneous Papers, No. 19: Some Views on Archaeology and Its Role at Brigham Young University, December, 1960. 23 pp. 10¢; 25¢.

UAS Newsletter, No. 40, March 30, 1957. 11 pp. Review of Hugh Nibley's An Approach to the Book of Mormon. 10¢; 25¢.

UAS Newsletter, No. 72, December 30, 1960. 10 pp. New Testament issue. 10¢; 25¢.

Special Publications, No. 1: Discovering the Past, 1954. 347 pp. Single copy \$3; \$6.

Special Publications, No. 2: Stela 5, Izapa, Chiapas, Mexico. 1958. 88 pp. Single copy \$1; \$2.

Special Publications, No. 3: The Tree-of-Life Carving of Stela 5, Izapa, Chiapas, Mexico. Drawing reproduction, 4 x 5 ft. (3/4 actual size). Single copy, \$15; \$20.

"A Pueblo Site in Utah Valley," reprint from Utah Archaeology, Vol. 4, No. 2, pp. 7-13. 10¢; 15¢.

Notice to members in the Salt Lake City area: Bulletin 4, Miscellaneous Papers 19, Newsletter 72, and Special Publications No. 2, are on sale at the Desert Book Company and Zion's Book Store.

75.3 CHAPTER ACTIVITIES.

75.30 Campus Charter. Bruce W. Warren, who for the past several years has been excavating at Chiapa de Corzo with the New World Archaeological Foundation, delivered a lecture on recent progress at that site at a meeting of the chapter held on May 10. Mr. Warren also discussed recent developments in Mesoamerican chronology as revealed by excavations at that site.

The final meeting of the chapter was held on May 24, at which time Dr. M. Wells Jakeman and other members of the recent expedition (see above 75.0) reported on work at Aguacatal during the 1961 season. The report was accompanied by color movies of the expedition, as well as slides.

75.31 Salt Lake Chapter. Meetings of the chapter will not be held during the summer months, according to Virgil V. Peterson, director. Regular



monthly meetings will resume in September. John L. Sorenson of the BYU sociology and anthropology department and Dee F. Green of the BYU archaeology department were the speakers at the chapter's last two monthly meetings in April and May.

#### 75.4 RECENT PUBLICATIONS BY SOCIETY MEMBERS

An article entitled "A Chiapa de Corzo Sherd Report" by Bruce W. Warren of the NWAFA, was published in Katunob, Vol. 2, No. 1, March, 1961. The material is similar to that presented at the Society's Twelfth Annual Symposium in April, 1960 (Newsletter, 66.06).

The article is an attempt to arrive statistically at the "proportion of sherds or pottery being made during each phase that would reflect population density or some similar phenomenon. . . ." The study shows a rather abrupt drop between Chiapa de Corzo occupation periods VI and VII, or between the Early and Late Proto-Classic.

This statistical approach is interesting and should be looked into further by archaeologists. Modifications and refinements are bound to take place, but many are the archaeologists who wish that the sherd production of their sites could be of such quantity as to make counting them by the basketfuls statistically significant.

A recent publication by Society member Franklin Folsom and his wife Mary may be of interest to members who wish to give their children something sound in the way of archaeological literature but written on a non-technical level. The 160-page volume, The Story of Archaeology in the Americas, was issued in December of 1960 by Harvey House, New York, and sells for \$2.95.

The book contains chapters on the Southwest, Middle America, the Andean area, and the Paleo-Indian. There are also chapters on technology, and some of the problems yet to be solved. Of special importance are sections urging the youth to adopt a scientific outlook on ancient sites and artifacts, as well as some do's and don't's for the amateur.

The last few pages contain valuable information on local archaeological societies and museums in the various states, as well as a list of books, periodicals, and films currently available on archaeology. A seven-page pronouncing index is also furnished.

The illustrations by Kathleen Elgin are simple but accurate and highly complimentary to the text. Again, they are aimed at the youth both to instruct and to catch the eye. The volume has been reviewed for scientific accuracy by Dr. J. Alden Mason of the University of Pennsylvania.

75.5 NEW ARCHAEOLOGY DISPLAY. A new display featuring the archaeology of Utah Valley has recently been unveiled in the south wing of the Eyring Science Center, BYU campus. The display features material remains recovered from the G. M. Hinckley site west of Provo, Utah, which has been excavated by the Department during the past several years.

Archaeology students responsible for the project include: Robert Kenyon, designer; Kristine Hansen and Sandie Working, art work. The above, with Dee F. Green, constructed the exhibit.

#### 75.6 THE THIRD LAW OF MUSEOLOGY.

(Copied without permission or apologies from the Interamerican which in turn copied it without permission or apologies from the Mustang, Texas Memorial Museum, Austin 5, Texas.) "The third law: every great university is associated with or host to an excellent museum or museums. The LAW can be stated another way, and with a lot more fun; inferior universities--those whose faculties seldom do anything but teach and attend committee meetings, whose faculties and graduates are infrequently listed in American Men of Science and similar publications, whose libraries are mean and frayed, whose professors are debt-ridden and seedy, whose graduates seldom enter professional or graduate schools, and the exceptions hardly ever attend their alma mater, lack or, at most, support only tiny, dusty, dark, collection-poor museums. . . . Universities are huge complex institutions not easy to evaluate tangibly by matriculating students, prospective professors or the general public. USE THE LAW. If you can't find a campus museum at a university, take off permanently for more nutritious pastures. If there is a museum (or museums, of course) go in and if you forget the time and miss your plane, be happy; you've found an institution of excellence.' It might be added that the state and condition of the museum very frequently parallels the state and condition of the intellectual atmosphere of the campus in general."