

TRIBES AND TEMPLES

A RECORD OF THE EXPEDITION TO
MIDDLE AMERICA CONDUCTED

BY

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this book has been printed on
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This book is dedicated

to

ALFRED P. MAUDSLAY

*who was the first to explore the Maya ruins in a modern
scientific way, and who in the section on archae-
ology of the Biologia Centrali Americana
gave the world a monumental collec-
tion of material for future
research.*

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— o —

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PREFACE

In March, 1924, an anonymous friend of Tulane University created an endowment, the income from which would be used for the study of the Middle American countries. It was then decided to conduct an archaeological and ethnological investigation through library research and expeditions to be sent into the fields formerly inhabited by the most notable of the ancient population of America, the Maya Indians.

Mr. Frans Blom was selected to take charge of the first expedition, assisted by Mr. Oliver La Farge. They started from New Orleans on the 19th of February, 1925. The object of the expedition was to study ancient remains, as well as the customs and languages of the Indians. At the same time notes were taken on various other subjects.

The work was so distributed that Mr. Blom made studies of everything pertaining to archaeology and he also collected geographic data. Mr. La Farge gathered material relating to the customs and languages of the present-day Indians.

In the following pages will be found the report of this, the First Tulane University Expedition to Middle America. It is based on the journals kept day by day throughout the expedition. The sections on archaeology have been written by Mr. Blom and those parts relating to the present-day Indians, by Mr. La Farge. An attempt has been made to present the material in such a form that the general reader, unacquainted with the history of the ancient inhabitants of Central America, will find it interesting, and at the same time to uphold a standard satisfactory to the scientist. For this reason paragraphs describing the mythology, calendar, and customs of the pre-Columbian Maya have been woven into the text, forming a background to the discoveries made by the expedition.

The style used by the writers is distinct, as is also the material they present, but as many things of interest would be lost in splitting it into separate publications, it was decided to make this report in the form of a book of travel.

For the convenience of those searching for special information, a detailed index will be found at the end of the second volume.

EXPLANATIONS AND ABBREVIATIONS

Stela —A monolith, either plain or carved.

Plaza —A square enclosed by mounds or temples.

Finca —A large ranch.

Cabildo—A Municipal House.

Tams. —State of Tamaulipas, Mexico.

Ver. —State of Veracruz, Mexico.

Tab. —State of Tabasco, Mexico.

Chis. —State of Chiapas, Mexico.

1 km.—Kilometer, equals 3,280 feet 10 inches.

1 m. —Meter, equals 3.28 feet.

1 cm.—Centimeter, equals .3937 inches.

All maps and plans are made to the true north, using a magnetic declination of 7° east.

Where nothing else is indicated on the plans, north is always towards the top of the page.

CHAPTER I

PREPARATIONS AND EQUIPMENT

For centuries man has been interested in the deeds of his ancestors. Innumerable discoveries of prehistoric objects have served to rouse his interest and imagination and have made him draw hasty conclusions, and weave fascinating fabrics of fact interwoven with many threads of fancy. Giants, dwarfs, dragons, knights and fair maidens, inhabited planets and lost continents, were the designs in these richly-textured compositions.

Today archaeologists tell stories which resemble these gaudy fabrics, the newspapers give much space to discoveries in all parts of the world, the public reads and is thrilled. Rarely, though, is it known what goes before a discovery. The reader pictures the explorer stumbling on a ruined city, without realizing that training and careful research precede every expedition into the unknown. He does not see the scientist working late hours over old maps and documents. He does not see him selecting his equipment with the greatest care. He does not see the toilsome days when the expedition fights dense forests, bad trails, and millions of insects—not for a few days, but week after week, month after month.

Assyria, Babylonia, Egypt, Greece, and Rome have their historians. You learn about them in school. We can reconstruct the daily life of the Egypt of three thousand years ago to the minutest details. One has heard something about the North American Indians, but few are those who know that 1,500 to 2,000 years ago a civilization, the Maya, that can well be compared with those of the Old World, and on certain points even surpassed them, flourished on the American continent.

The Spanish Conquerors and their priests wrote about the people they met on their hunt for gold and souls. The first modern explorer to visit this territory was an American, John L. Stephens. After him came French, German, and British. The leadership in this field of research again passed to America when the Peabody Museum of Harvard University began its work, followed by the Carnegie Institution of Washington, and now quite lately Tulane University of Louisiana. Each expedition has brought home material that adds to our knowledge of the civilizations of Ancient America.

The general history of Egypt, Greece, and Rome has been written. The history of the foremost civilization of ancient America has

not yet been written, but the day will soon come when the story of an American race as artistic, as scientific, and as human as most of the races of the Old World will be opened to those who are fascinated by bygone days.

We will follow the Tulane expedition from its start to its end, and glean from its records a little of the history of the ancient Maya, the Maya country, the daily life of the Maya descendants, and the methods used in modern archaeological research.

The less equipment one intends to take on a long expedition, the more difficult it is to get it together. This sounds paradoxical, but none the less it is true. When one has a long journey ahead, and knows that it will cover difficult trails, every piece of equipment has to be selected with the greatest care. Far away from towns it is impossible to get many things needed on an expedition which has archaeology and ethnography for its main purpose; everything must therefore be carefully considered beforehand.

The 1925 Tulane Expedition to Middle America was carefully planned months ahead. A multitude of maps was consulted and compiled into a main expedition map. There are maps of most of the Middle American countries, and the greater number of them look well, but are remarkably inaccurate in their details. None the less, it is of value to compile all available data before starting.

Books on the region were consulted, and extracts made so that we would have a handbook of condensed information to be used when far from libraries.

After the route had been carefully considered, the next step was the selection of the equipment. We knew that, for the greater part of our journey, we should have to depend on horse or mule transportation, and that we should have to cross tropical forests where there is an abundance of trees, but no grass on which to feed the animals. We also knew that there would be steep mountains to cross. Furthermore, as the expedition was planned to be a reconnaissance trip more than an excavation expedition, light equipment would be necessary. Light fibre boxes specially made for transportation on pack animals were secured. They are called "kayaks," and measure 58 cm. long x 23 cm. broad x 49 cm. high. They will hold about 100 pounds each, two boxes being a convenient cargo for one animal, and one box the usual weight carried by an Indian.

Though there were only two white men on the expedition, an aluminum cooking set for four persons was bought. It is always best to have a cooking outfit for two or three more than the party

numbers, to take care of guides, and visitors. Knives and forks go with the set, but extra knives for skinning game, etc., have to be provided.

No camp cots were taken, but hammocks with specially made mosquito nets. These nets have a sleeve at either end through which the ropes of the hammock run. Indian huts are built of poles and the forest is full of trees, so there is always a place to hang the hammock. We found sheets both cool and comfortable when our bodies were itching with tick bites, and they can be used as bandages in an emergency. A rubber wash basin also proved very convenient.

A folding table was carried for use not so much as a dining table, as for a place on which to complete our field notes and water colour sketches. It is comparatively rare to find tables in Indian houses. For chairs we used our kayaks.

No complete tent was taken along, only a fly-sheet, this proving sufficient for general use in covering ourselves and the cargo. There are usually elephant-ear leaves, or small palm leaves in the forest, so that in a short time one can build a shelter sufficient for a couple of days, even if it should rain quite hard. As it happened, the expedition was fortunate enough not to encounter a full day's rain as long as it was on the road. The trip was so planned that we would be well up in the mountains before the rains started in the lowlands along the Gulf Coast. Furthermore, this year proved very favourable in that the rains were late in the highlands.

No member of such an expedition should ever be without a compass, a snake-bite pencil, and an army emergency ration. All three things are carried for obvious reasons. The compass serves to find one's bearings. The snake-bite pencil, which looks like a small fountain pen, contains in one end a small lancet with which to enlarge the wound inflicted by the snake, in the other, permanganate crystals, which, when smeared into the incision made with the lancet, have proven a potent antidote against snake bites. The army emergency ration contains three cakes mainly composed of chocolate, each representing a meal.

For geographic reconnaissance work a Brunton pocket transit was used. This is a remarkable instrument, light and compact. It serves both as compass and clinometer. Mounted on a small camera tripod it gives quite accurate readings, and the person trained to use it can make very good traverses. As it contains a mirror, it can even be used when shaving.

It is a well known fact that the ancient inhabitants of the region which we proposed to explore oriented the greater part of their buildings to the cardinal points. They knew the true north, but not

the magnetic north. Our compasses were, therefore, corrected to true north, using a declination of 7° E. This declination is an average of declinations ascertained by surveyors of several oil companies who have been and in some instances still are, working in the region.

A French barometer compensated for temperature was used for taking altitudes over sea level.

We carried three watches, which were checked with each other, and used in combination with the barometer when observing altitudes.

All measurements were done in the metric system. For the convenience of those not conversant with this system, a table giving the equivalent in feet is found in Appendix X.

In measuring buildings a 25-meter steel tape was employed, and larger distances were paced. All plans of ruins were drawn to scale on the spot. Long descriptions of arrangements and dimensions of buildings are tiresome, and do not give a picture of their plan to the reader. Those who wish to study the drawings in more detail can easily ascertain the dimensions with the help of a graduated ruler.

Pedometers are not reliable, so when pacing, every fifth step was punched on a tally.

The smaller impedimenta used in this section of the work included drawing boards, rulers, protractors, water colours, and coloured crayons.

Next came the choice of photographic equipment, which should not be too bulky. For rough work a No. 1-A Autographic Kodak, Jr., with roll film and anastigmat F 7.7 130 mm. lens was used, to this we also had a portrait attachment. This small camera gave very good results, though roll film is always difficult in moist tropical countries, as it is apt to stick to the covering paper when rolled tight.

For more special work, such as photographing monuments and buildings, we used a Graphix camera with a Kodak anastigmat lens, F .4.5, $1\frac{1}{2}$ inches, size $3\frac{1}{4} \times 5\frac{1}{2}$ (post card size). Very good results were produced with this machine. The speed of the camera was of no account; all the exposures save two were made on time, with the use of a tripod. It was of great value to be able to focus the camera exactly with the help of the ground glass, and this camera is not so heavy and bulky as a Graflex. Pack film was used exclusively with this machine. The individual films in the pack lie loose between sheets of black paper, so that the tropical moisture is not so apt to damage them as with roll film.

It is a great help to carry an instrument, put out by the Kodak people, with which you can tilt your camera to any desired angle. This is specially helpful when photographing monuments which are lying flat on the ground and are difficult to raise.

Though we were able to secure a very good collection of photographs with the two mentioned instruments, we have come to the conclusion that small cameras with exceptionally good lenses really are more serviceable than large ones. It is just as easy to make an enlargement from a small, sharp negative as from a larger negative. A small camera is much easier to handle both when on foot and on horseback.

Before leaving for the field we were given a medical examination, and this same was repeated upon our return. The first investigation was to ascertain that we were in fit condition for a long, strenuous journey, and the second to find out if we had succeeded in collecting some interesting germs in our blood which might be of importance to medical students.

A small medical kit from Burroughs, Wellcome & Co., served us very well. The products of this company are wonderfully compact and of high grade. We carried a large stock of quinine, which was chiefly used to help the Indians.

For work in the ruins we had folding shovels, trench picks, a 1½ ton jack for lifting and turning fallen monuments, stiff brushes to scrub moss and lichens off the monuments, and some sheets of tin for use as reflectors when photographing monuments and hieroglyphics. These sheets of tin were cut so that they would fit inside the kayaks.

When selecting saddles and pack saddles it is advisable to get the kind commonly used in the country to be visited. The North American horse is larger and broader than his Central American brother, and the McClellan and Texas saddles are generally too broad for the Central American animals and are apt to damage their backs. We, therefore, bought saddles of the usual Mexican type. Muleteers are accustomed to particular types of pack saddles, and much annoyance and delay is avoided when the traveler buys the kind of pack saddle his servants are acquainted with.

Our personal equipment was very small, consisting chiefly of riding breeches, flannel and linen shirts, heavy boots, and broad brimmed Stetson hats. For protection against rain we had native ponchos made of cloth covered with native rubber. These are very practical, as they cover the entire saddle and saddle bags.

Only a small supply of canned goods was carried for emergency purposes. For the greater part of the journey we lived off the

country, buying our supplies of sugar, salt, coffee, beans, and rice in the villages we passed through. No firearms were carried on the first half of the trip, but in Palenque we purchased a small Winchester .22-calibre rifle which proved to be sufficiently powerful to kill such food game as curasaw, wild turkey, and monkey.

A stock of glass beads, bandanna handkerchiefs, and a collection of chromo prints of saints were carried for bartering with the Indians, or as gifts to the more important members of the tribes with which we came in contact.

Leafax notebooks were used for our field notes, and all notes were made with a carbon copy. Original and copy were kept in separate places and whenever we had a safe opportunity of sending out mail, the carbons were shipped home, so that if we should have the bad luck to lose our equipment, our field notes at least would be safe.