

Chicago Natural History Museum

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'Poll' of Ancient Housewives . . .

A NEW METHOD TO TRACE ARCHAEOLOGICAL DATES

By JOHN B. RINALDO
ASSISTANT IN ARCHAEOLOGY

A "poll" that won't be contradicted by later returns—because it's a poll of people who are not only dead but have been dead from about 1,000 to 5,000 years—has recently been made by archaeologists on the staff of the Museum. This was a poll to ascertain the preferences of prehistoric housewives for particular kinds of pottery vessels. The housewives were those of the extinct Mogollon tribe of Indians that lived in what is now New Mexico.

The purpose of the poll was to determine dates of various periods of ancient culture. This new method of dating was devised by Dr. Paul S. Martin, Chief Curator of the Department of Anthropology, and the writer. It was applied to artifacts excavated by expeditions to the Southwest led by Dr. Martin and is reported upon in a book, *Cochise and Mogollon Sites, Pine Lawn Valley, Western New Mexico*, just issued by the Museum Press. The book, a report of this poll and other results of the 1947 Southwest Archaeological Expedition, was written by Dr. Martin, Dr. Ernst Antevs, Research Associate in the Department of Geology, and the present writer.

The report describes an ancient Cochise camp site, three later pit-house villages, and a small town, resembling an apartment

house in form, built of stone. Also described are the tools, pottery, and utensils of the people who formerly lived in these places. There is a chapter by Dr. Antevs on the dating of the Cochise artifacts from the earliest site and a chapter on methods of excavation by Mr. George I. Quimby, Curator of Exhibits in Anthropology. The sites reported on are representative of stages in cultural development in this area from about 3000 B.C. up to about A.D. 1000, although there remained gaps in the line of development to be filled in by subsequent investigations.

The use of the poll or new method of dating devised by the authors is an important part of the report because it is an axiom that "methods of dating are the backbone of archaeology." This does not necessarily mean that the digger into the past is interested only in the kind of dates the school boy learns so reluctantly, such as 1066 or 1492. If the archaeologist cannot determine the calendar dates for the ruins in which he is digging, he asks himself the question, "Which is the earliest, which the next earliest, which the latest?" In this instance, because of the lack of tree-ring dates, the authors were faced with the problem of determining which one of two pit-house villages, basically much alike, was lived in earlier.

HOW 'POLL' WAS TAKEN

The method of dating they devised was the so-called poll. It was known that a style of pottery vessels with polished exteriors was a later style than one with vessels that had rough exteriors. First a count was made of the different kinds of pottery from each house. Then the tallies for the various houses were arranged in a column with the counts at the bottom of the column for those houses whose occupants liked the old styles better and, at the top, the counts for those that had changed over to the new. Thus it was determined not only which site was the earlier but also which houses of the two sites were the earliest and which the latest. It is as if we had concluded that a house in ruins in one of our own cities was earlier than another house because there were more old-fashioned cast iron and copper pots and pans and fewer new-style aluminum and glass kitchen utensils in the first than in the second house.

A similar comparison was made of the architecture of the houses at the earlier village. These houses were arranged in the same order that they appeared in the pottery column and it was found that there were three groups of houses representing three distinct styles of architecture. For example, there was an increase in the number of floor storage-pits from early to late, and each group had a different type of entrance.

By an extension of this method, similar trends were also found in the frequencies of the different types of tools these people

—THIS MONTH'S COVER—

As related elsewhere in this BULLETIN, the 1949 season of the Museum's Southwest Archaeological Expedition will begin in June. The cover picture, taken in a previous season, gives an idea of how a large expedition of this type conducts one of its extensive "digs." Shown is the excavation of an early Mogollon pit house that dates to about A.D. 500, as it appeared from the expedition's 20-foot photographic tower during final operations on this particular site. A close examination of the picture will reveal prehistoric human skeletons, buried in pits and around the edge of the house. Burials and entrances were orientated to the east, apparently indicating a tribal ritual based on sun worship. Stone tools and other artifacts recovered by the archaeologists from the floor are shown around the site. The trench in the background is an exploratory one—a number of these must be essayed before a fruitful site is uncovered.

used. For example, certain types of milling stones were used more frequently in later times and others more frequently in earlier times. Thus the trends in pottery and in house and tool styles checked against each other and provided a more refined and detailed picture of changes than would have been possible otherwise.

Two Contributors Elected

Two names were added to the roll of Museum Contributors (a membership designation for those who contribute between \$1,000 and \$100,000 in money or materials) at the meeting of the Board of Trustees held May 16. The new Contributors are Mr. John W. Moyer, Chief of the Motion Picture Division of the Museum, who was elected in recognition of his gifts of natural-history specimens, books, and motion-picture films, and Mrs. L. Byron Nash, of Highland Park, Illinois, who has presented valuable Polynesian ethnological specimens.

Brother Léon (Joseph S. Sauget y Barbier) of the Museo de Historia Natural del Colegio de La Salle, Vedado, Havana, Cuba, was elected a Corresponding Member of the Museum. (Corresponding Members are scientists or patrons of science, residing in foreign countries, who have rendered eminent service to the Museum.) Brother Léon is the greatest living authority on the flora of Cuba. He has repeatedly assisted various expeditions from the Museum.



Rinaldo, John B. 1949. "A New Method to Trace Archaeological Dates." *Bulletin* 20(6), 2-2.

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