

Anthro Notes

National Museum of Natural History Bulletin for Teachers

Vol. 14 No. 2 Spring 1992

WHO GOT TO AMERICA FIRST? A VERY OLD QUESTION

As most of us are now very aware, 1992 is the 500th anniversary of Christopher Columbus' famous voyage to the "New World." The assertion that Columbus "discovered" America when his trio of ships made a landfall in the Bahamas has been questioned, however, by a number of concerned individuals. Native Americans are understandably disturbed that their priority of being the "first" Americans is somehow challenged. Most scholars now insist that the first human settlers of this continent were indeed the ancestors of the contemporary Indian tribes. Their first migration (from Asia via the Bering Strait area) probably occurred more than 15,000 years ago, with several more waves of migrants arriving some thousands of years later.

But if that is the widely-held explanation, what is all the argument about? Most of the

debate surrounds hypothetical later arrivals in the New World, especially during the last 3000 years, and purportedly mainly from locations to the east across the Atlantic. A smaller number of proponents look to trans-Pacific connections during this same period of time. What sort of evidence and how we evaluate it is the subject of concern for many anthropological scholars today. As our review will indicate, these are not new questions, nor are they ones that can be settled for "all time"--the same ones keep reappearing over the centuries.

The century following Columbus' well-documented voyages, none of which actually reached North America, was one of questioning too. Had Columbus reached Asia or the West Indies? Who were these inhabitants that met him as he stepped ashore? We still refer to them as "Indians" because of the mistaken view that the islands, and later the



" AT THIS RATE IT'LL PROBABLY TAKE THEM 500 YEARS TO SORT IT OUT..."

mainland, were part of the Asian continent, not a "New World" at all. Magellan's circumnavigation of the world in the 1520s would establish the Western Hemisphere as a separate land mass, but then the question arose as to the origin of the inhabitants.

Here speculations ran wild. By the end of the century (1590) a Spanish church scholar, Joseph de Acosta, would publish a marvelously well-constructed answer: the inhabitants of the New World came from Asia across a land bridge, arriving as hunters, then developing agriculture and later high civilizations such as he had seen in Peru and Mexico. He specifically discounted possible trans-Atlantic connections to the Lost Tribes of Israel or the mythical sunken continent of Atlantis.

Modern scholars would agree with this Acosta scenario, but just about a decade later another Spanish cleric, Gregorio Garcia, wrote a two-volume work that would open the gates of migration to the Lost Tribes, to refugees from Atlantis, to Carthaginians from North Africa, and many more. He refused to be partial to any on his long list, but they were almost all Trans-Atlanteans, bringing seeds of civilization with them. Thus in 1607 the battle was joined: the New World native cultures were either derived from land-based Asian migrants (Acosta) or transplanted from the Old World by trans-Atlantic seafarers (Garcia). The argument has lasted until today.

METHODS OF INQUIRY

The origin of the earth's inhabitants is a central question in anthropology. The answer is also one that requires careful evaluation of all the information available to us each time the question is asked. Acosta and Garcia were limited in the facts they had at hand, although both had lived in several parts of the New World before addressing the problem--no armchair scholars here. But what kind of evidence do anthropologists bring to bear on such questions today?

First, we look at the people themselves: what do they look like, whom do they resemble? Simple questions in the 1600s: outward appearances were all they had. Now in Biological Anthropology, we turn to sophisticated analysis of genetics and DNA to try to see way back in time as human

populations spread across the globe. We can clearly tie all basic Native American origins back to Asia, although we may quibble about exactly at what time and with which Asian groups they are genetically most closely linked.

Second, we consider the cultures of the Native Americans, especially those aspects of culture that will allow a long look back in time. In this case, linguistics, the study of languages, is an important information source. Native American languages represent enormous diversity, much more so than in comparable areas in the Old World, where diversity has decreased over time. This pattern of diversity suggests both internal diversification and repeated migrations from North Asia. According to one scholar, the degree of linguistic diversity in the New World points to a history of "tens of millenia."

Third, when we look at the artifactual content of New World cultures, we conclude that most of these myriad artifacts, covering thousands of years, are definitely of New World origin, although certain aspects of some material cultures do show north Asian connections, especially in the Paleo-Indian period, 7-10,000 years ago.

Finally, we turn to a rather different category, that of the plants and animals associated with New World cultures. Here too just a few specific Asian connections exist: dogs are clearly long-time associates of humankind and quite surely accompanied some of the very first Americans from Siberia. Plants are quite another matter, and here we are discussing agricultural items only. All the major food plants, such as corn, potatoes, and beans, are derived with the help of human intervention from native American domesticated plants. Only a few questionable items await further study concerning a possible outside origin; these are the bottle gourd and cotton. The sweet potato, another enigma, seems to have gone from South America to Polynesia, just to confuse the issue.

With those basics in place, we can enter the fray of evaluating other sources of evidence for trans-oceanic connections with one certain understanding: if an hypothesis is bolstered by strong emotional concerns, almost everything can and will be believable to some supporters. Recognizing that each of us has a personal bias that influences our

own view of the world does not make us immune to its force, but at least we can make a conscious attempt to make our evaluations as bias-free as possible.

MOUNDBUILDERS

Archaeological evidence to answer the question of "Who Got Here First?" would necessarily have to await the development of the discipline of archaeology in North America. Thomas Jefferson is very often cited as the "father" of American archaeology, and he certainly attempted one of the first archaeological explanations of the question when he wrote in his famous "Notes on Virginia" (1787) about an Indian Mound that he had excavated some years before. However, his strongest evidence to support his belief in an Asian origin (via the Bering Strait) of the Native Americans was from his study of Indian languages. He cited the diversity of these languages as proof that they had been here a long time.

Other scholars joined Jefferson in this well thought-out view. Yet, in the early nineteenth century the westward expansion of settlement into the Ohio Valley produced a great deal more archaeological evidence from Indian Mounds. As interpreted by some new voices, the accumulating data supported the supposition that these mounds and the rather elaborate artifacts found in them were made by the exotic "Mound-builders," purportedly an advanced and extinct culture not connected to Native Peoples. The hypothesis spawned some very popular books, such as those by Josiah Priest (1833), that were fanciful in their interpretations and careless in their evaluation of the data.

The voice of reason came from Samuel Haven in a Smithsonian-sponsored volume (1856) that supported the Bering Strait hypothesis and called some of the wilder notions "Vagaries." We now know that much of the Moundbuilder hypothesis was based on fraudulent documents, such as the Grave Creek and Davenport inscriptions, which tried to give support for literate Trans-Atlantean cultures making inroads on the prehistory of the Ohio and Mississippi Valleys. It just wasn't so, and again thanks to the Smithsonian's major research project of Mound Exploration under John W. Powell, the Moundbuilder Myth was laid to rest by 1900. The mounds, the earthworks, and the artifacts were the handiwork of

American Indians, not that of Trans-Atlantean invaders.

VIKINGS IN AMERICA

However, there was much more than just mounds and Native Americans to argue about. By 1891 a volume entitled "America Not Discovered by Columbus" by Rasmus B. Anderson would contain a lengthy bibliography with some 350 sources on the topic. It listed claims of America's discovery by Chinese, Arabs, Welsh, Venetians, Portuguese, and Poles. However, the majority of these references supported the notion of Vikings as the ones who got here first in the race across the Atlantic. This hypothesis came into being more than 150 years ago, and really had only the literary evidence from the Norse Sagas to support the idea.

Not that it was not a worthwhile idea. Few doubted that Vikings in North America could or did happen. There just was no archaeological evidence to prove it. Again frauds came to the rescue; if you can't discover the data you need, just manufacture it! Thus was born the fake Kensington Rune Stone in the 1890s and the "salting" of the Beardmore site in Canada with real Norse artifacts to be used to support a pre-Columbian Norse presence in North America. But good archaeology by Helge Ingstad would finally come to the fore in 1960 with the right answer: Norse ruins at L'Anse Aux Meadows on the northern tip of Newfoundland, complete with sod huts and artifacts such as a brass pin, a soapstone spindle whorl and iron nails, all dated to about AD 1000. Was it the home of Leif Erickson? Archaeologists are not sure, but we know that the Vikings certainly made it to the New World long before Columbus.

OTHER SOURCES OF NEW WORLD INFLUENCES

With an affirmative reply to the Viking presence, one might think that much else might logically follow. What about Chinese voyagers in junks across the Pacific, Lost Tribes from Israel still looking for a homeland, Phoenicians from the Mediterranean, Celts from Ireland or Wales, or West Africans in Mexico? Well, all of the above and more have been suggested by various writers in the twentieth century alone. Some of the best known authors

among recent long-range diffusionists are Harold Gladwin, Barry Fell, and Ivan Van Sertima.

First, let us consider whether or not such voyages were possible during the last 3000 years. The answer is a very strong yes. The maritime exploits of the Polynesians during this period are well-known and documented by excellent archaeology in the Pacific. They colonized the entire eastern Pacific area. Much earlier (50,000 years ago) migrants from Southeast Asia made their way to the great island continent of New Guinea/Australia; part of that trek quite probably included water crossings.

Some of the proposed trans-Atlantic crossings were supposedly made by cultures known to have had maritime skills. Indeed the fact that Atlantic crossings (especially in summer) in small boats, even in solo attempts, have been successfully made is well-known. The Pacific, too, has been conquered in recent times, but with a fair number of casualties, although the latter fact is not as well advertised. So we may accept that it can and could have been done with the maritime expertise available from 1000 B.C. on, although the modern successes have benefitted from navigational and safety aids not available to all would-be travelers in earlier times.

But what is the basic evidence for this multitude of ocean-crossings to the New World that some chroniclers now insist took place in the past? There is certainly no biological evidence that can be used to support any such trips. One would have to admit that additions to the New World gene pool by these shiploads of mariners might be hard to detect; modern studies of prehistoric human skeletal remains in the New World have not shown any identifiable evidence, either, to support the presence of such overseas visitors.

Save for the Norse finds discussed above, no important archaeological discoveries have been made, if one means intrusive sites with buildings, artifacts, and trash heaps attributable to such voyagers. The evidence that has been used to support these hyper-diffusionist claims falls into two major categories: 1) inscriptions found either on cliffs, on rocks, or artifacts, or on crude stone structures where no other pertinent artifacts are found (ex. Dighton Rock in Massachusetts), and 2) stone sculptures and

other figurative pieces of art that are thought to depict foreign visitors or to resemble the artistic work of non-New World cultures such as the colossal Olmec head discussed in Professor Grove's article in this issue.

The inscriptions in a wide variety of purported Old World scripts have been found from one coast to the other, in the Rocky Mountains to the suburbs of Tucson, Arizona, from the Maine coast to the Great Basin of Nevada and Utah. Many of the inscriptions contain mixed texts with symbols of different times and origins. These finds also share another unusual characteristic; none have produced any nearby artifacts or associated living areas. They stand alone as sentinels of the past with no archaeological context--a very strange situation. Who left them? How did the ancient voyagers travel so far without leaving a single trace other than these inscriptions? Why did they do it? Unanswered questions and important to consider. One set of inscriptions with accompanying artifacts are the Michigan Relics or Soper Frauds manufactured by James A. Scotford between 1890 and 1920. Although debunked for decades, these pseudo-cuneiform messages are still being deciphered today.

The study of stone and ceramic sculptures to prove foreign connections has flourished in Mesoamerica, the area of high culture in Central America. Here these works of art are thought to demonstrate bearded voyagers from abroad, and in the case of the great stone heads from Vera Cruz, Mexico (some are eight to ten feet in diameter), they are thought to confirm trans-Atlantic travel from Africa to Mesoamerica and the Olmec at approximately 700 B.C. This African origins hypothesis has been supported for several decades by Prof. Ivan Van Sertima of Rutgers University, and is, in my opinion, based on a mixture of ethnic pride and personal bias. The facial features of these heads in particular were thought to represent Africans, however, they are also similar to the features of many Native Americans from the Olmec area. Any resemblance between the peoples of West Africa and Mesoamerica is more likely due to common adaptation to tropical conditions than a closely shared ancestry.

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TEACHER'S CORNER: TEACHING ETHNOGRAPHIC INTERVIEWING

Ethnographic Interviewing has been taught as a regular semester-long course at Macalester College for the past 22 years. The course is designed to enable students with little or no anthropological background to "enter the field" and successfully elicit cultural data from members of an American microculture. Although the course stresses interviewing as a field technique, standard and participant observation can be part of the ethnographic process. The purpose of the course is to enhance student understanding of what culture is and how it functions for members of a group, as well as to acquaint students with a valuable qualitative field method. Classes are largely devoted to problem solving, rather than lecturing or discussions of reading.

CULTURE AND ETHNOGRAPHY

When students begin the ethnographic interviewing course, I give them a detailed syllabus describing course goals and a sequence of research tasks. The first task is for students to read about the concept of culture and its place in ethnographic research. I use a so-called "cognitive" definition of culture (one that sees culture as a form of knowledge) for this course because I think it gives a clearer idea of what students should look for when they interview. I define culture as *the learned knowledge that members of a group use to generate behavior and interpret experience*. This definition stresses that culture is knowledge, not behavior or material goods. It argues that culture is learned and not inherited genetically. It says culture is shared by members of a group; it is not knowledge unique to an individual. Although culture is knowledge, not behavior, it is intimately tied to action. The definition asserts that group members use culture to generate behavior because culture provides a framework of rules to guide appropriate activity. Similarly, culture permits members of groups to interpret their surroundings and the actions of others. It provides the categories, rules, and plans by which group members conduct their lives.

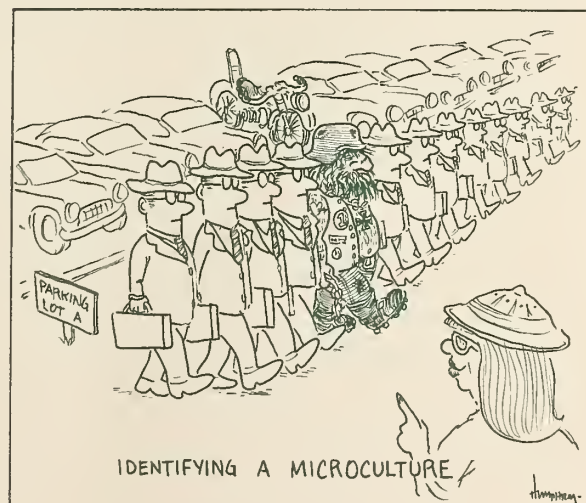
Ethnography is the task of discovering and describing a culture. Ethnographers try to learn about the behavior of a group by

looking at it through the eyes of the members themselves. Instead of going to the field with predefined problems, hypotheses and questions as many social scientists do, ethnographers try to elicit an understanding of what is going on from the actors themselves. They try to avoid projecting their own cultural categories or interpretations onto the world of their informants. They play the part of students; cultural informants become teachers.

Ethnographic Interviewing uses a focused ethnographic approach called ethno-science to involve students in a series of clearly defined learning steps. These steps require students first to identify a microculture, then choose a cultural informant, conduct a series of interviews, ask three kinds of ethnographic questions, record and analyze ethnographic data, discover cultural themes, and finally write an ethnographic report. Although each student investigates a different microculture, teaching the ethnographic method one step at a time means that all students will encounter at least some of the same fieldwork problems at the same time. What follows is a discussion of these steps.

CHOOSING A MICROCULTURE

To conduct ethnography, students must find a particular culture to study; choosing a culture depends on the ability to spot culture-bearing groups. Since Macalester courses only last for three and one-half months, I ask my students to study the culture of smaller groups called microcultures because they are more



manageable for the amount of time. Cultures come in different sizes, and some are found inside others. For example, citizens of the United States share a **national culture**, the cultural knowledge that sets them off as Americans. Americans may also be part of a major ethnic subgroup, such as African Americans or Mexican Americans. We often call these **subcultures**. There are, however, many other, smaller groups found inside the larger ones that members participate in only part of the time. I call these **microcultures** and make them the focus of the ethnography course because they are common, interesting and easy to access. Occupational groups, such as a group of bank tellers, can be called microcultures. So can recreational groups, such as a local chapter of a motorcycle riding association; educational groups, such as the third graders at a nearby school; kinship groups, such as nuclear or extended families; or political action groups, such as a local chapter of the Sierra Club. Macalester students have studied the cultures of hairdressers, bouncers, midwives, real estate agents, buckskinners (people who come together to create life as it was in the 1840s frontier), emergency room doctors, homeless shelter residents, sound technicians, musicians, airline pilots, camp counselors, zoo keepers, car salesmen, custodians, and hundreds more.

I warn students to keep several things in mind as they choose microcultures because some are easier to study than others. It is easier to study enduring, clearly structured microcultures because informants recall them more clearly. It is wise to avoid microcultures associated with public relations or ideologies such as religion, because informants will give a "party line" rather than good "inside cultural" information. Since informants remember better what they are doing at the moment, it is easier to study currently operating microcultures. Since the ethnoscience interviewing method depends on discovering the inside language of informants, it is better to study social microcultures, which promote regular conversation, and ones characterized by the use of English. It is harder to study "up" than "down" when you do ethnography; bank presidents are more guarded than bank tellers. Artistic cultures are difficult to interview because so much of the culture of art and music is tacit and "felt." I also suggest that students look at microcultures they know little about because

they will find it easier to spot unfamiliar cultural elements. Finally, I urge students to stay away from microcultures they are already a part of because it is often difficult for them to switch roles from group member to outside interviewer.

Most of my students choose a microculture and then look for an informant. An informant is someone who belongs to a particular culture and willingly teaches the anthropologist about that culture. Informants can make or break the research experience. It is wise to find an informant who is verbal, available, knowledgeable about his or her microculture, and interested in being interviewed.

I usually limit students to a single informant each semester because they lack the time to establish rapport with more than one. Students recruit informants from the community surrounding the college or may even find other students or family members to interview. Often they approach an informant "cold turkey." For example, last semester a student who wished to know about tattooist culture simply went into the tattoo parlor and asked the tattooist if she would be willing to engage in a series of interviews. Many students find informants by enlisting the aid of a go-between. One student found a zoo keeper through a friend who knew one. Still other students approach research by thinking of someone who would make a good informant, then asking that person what microculture they know about.

ETHICS AND BEGINNING THE STUDY

When students begin their ethnography, they have to be open about what they intend to do, and they have to recognize their own ethical responsibilities. I require students to tell informants that they are Macalester students doing a research project in an anthropology class. I also have them read the statement on ethics published by the American Anthropological Association. I stress the importance of protecting the informant at all costs. This often means covering the real identity of people and places and refraining from inquiry into damaging subjects. Finally, I will not permit students to study illegal microcultures, although many find them interesting. The risks to the students themselves are much too great.

RESEARCH STEPS

The interviewing process is divided into three steps: discovering folk categories, eliciting taxonomic structure, and finding attributional meaning [see "Doing Ethnography at Macalester College" in the Winter 1992 issue of *Anthro.Notes*]. These steps relate to the central thesis of ethnoscience that a significant part of people's culture is coded in language. If you can learn the words people use, place closely related words in taxonomies and determine their meaning, you can gather a great deal about a culture quickly and systematically. Let's look at these steps one at a time.

Discovering categories. I teach my students that human cultural knowledge is stored in thousands of mental categories. For example, *grass* is the name for a category of plant growing in front of my house. Although each little plant is slightly different, I and my neighbors can efficiently talk about the plants by categorizing them as a single kind of thing. We call the words used to name categories folk terms.

The first step in the interviewing process is to discover folk terms. To do this, students ask a kind of ethnographic question. **Descriptive questions** are any questions designed to get informants talking about their cultural worlds using their own folk terms. Since ethnographers try to elicit the informant's viewpoint, descriptive questions try not to lead. To elicit folk terms, the best strategy is to ask about what people do, not what they think or what their opinions are.

The most general descriptive question and one which students ask first is the **grand tour question**. This asks about an informant's average day or about the layout of a particular place. For example, when asked what he did from the time he arrived at work until he left, a stock broker described arriving at the "office," stopping by the "cage" to pick up his mail, reading his "writes" and "confirms," "posting his books," reading the "*Journal*," and "calling clients." All these are folk terms for stock broker categories.

Once the initial grand tour is completed, student ethnographers ask **minitour questions**, which are questions about some of the folk terms they learned from the

grand tour question. "Could you describe what brokers do when they call clients?" would be a minitour question. So would, "Could you describe the cage for me?" Informants then go into more detail about these things, using additional and often more precise folk terms.

Story questions and native language questions are also kinds of descriptive questions. "Has anything unusual happened to you or other brokers recently?" would be an example of a story question. Stories often yield a wealth of folk terms. Native language questions are used to check whether or not a particular word is really a folk term, one used by members of the culture. "If you were talking to another broker, would you refer to that place as the cage?" would be an example of such a question.

I have students tape record interviews and transcribe them completely, so they don't miss folk terms. After they have completed their first interview, I have them make an overhead transparency of the first page of their interview and show it to the class. They discuss with their classmates how their interview went and ask for help with problems. This gives students a feel for different interviewing and informant styles, and a sense of involvement in each other's work.

Discovering Taxonomic Order. The next step in the research process is to discover taxonomic structure for folk terms. The task derives from the fact that some folk categories classify other categories by a single relationship. We call the larger categories **domains**. For example, at the brokerage office, the domain "broker" is a cover term for "big hitters," "rookies," "brokers" (average brokers), and the "manager." Together these terms form a small taxonomy, which is a hierarchical chart based on the inclusion of some terms by others and on the notion that terms on any level contrast with each other. One student, Sharon Saydah, recently elicited the a taxonomy of kinds of customers from a car salesman. Customers or buyers could be divided into 14 categories including mom and pop (empty nestors), engineer (pipe smokers), parents with high school grad, guys wearing Raiders jackets (gang members), outstaters (weekenders), brochure collectors, and first time buyers. To create taxonomies, students must look for domain

cover terms. Plural nouns often give clues as the term *customers* indicates above and the relationship "kinds of" implies. I also have my students look for taxonomies built on other relationships in addition to "kinds of"; for example, "ways to" do things, "steps in" doing things, or "parts of" things.

To fill out taxonomies, I have students use taxonomic or structural questions. If they already have discovered a domain and a relationship, they can ask **descending structural questions**. For example, once she discovered the term "customers," Sharon Saydah asked "What kinds of customers are there?" which is a typical descending structural question. If students discover a list of things that all appear to be related in the same way, they can ask an **ascending structural question** to discover the domain that ties them together, such as "What do all these terms have in common?"

After a second and third interview, using a mixture of descriptive and structural questions, I have students construct a taxonomy to show to the class. Since it is easy to include information in a taxonomy that does not belong, discussion about taxonomic problems can take substantial time.

Discovering Attributional Meaning. So far, all that students may know about some of the terms they have collected is what they sound like and how they relate to other terms in a taxonomy. The final interview step involves discovering more about what terms mean by finding out the important attributes that relate to them and that help distinguish between the terms. For example, one student found from a touring motorcycle club member that a 1991 *Interstate* is a kind of Honda Gold Wing motorcycle (its place in a taxonomy) that has an opposed six cylinder engine, is water cooled and shaft driven, is very smooth, is very heavy, has a comfortable seat, has a radio but no cruise control or CB, is very reliable, handles well, and has large luggage capacity. All of these are important attributes that give the *Interstate* meaning in the culture of touring club members.

I tell my students that it is easier to elicit detailed attributes of terms if you have informants compare and contrast a set of closely related categories, and this is where taxonomies come in. I have my students take a "contrast set" of categories from a

taxonomy, then ask attribute questions about them to elicit dimensions of contrast. Questions might ask informants the difference between two terms, or to take three terms and point out which two are most alike and how they differ from the third. Another good attribute question asks informants which categories are best and why. The "why" question should yield sets of important attributes.

When they are done, students display their attributes and original contrast set in paradigms, which are charts designed for this purpose. A paradigm of the contrast set, "kinds of securities," elicited from a stock broker, would look like this.

Paradigm of Kinds of Securities

<u>Kinds of Securities</u>	<u>Safety</u>	<u>Return</u>	<u>Capital Gain</u>	<u>Insured</u>
bonds	high	medium	sometimes	no
stocks	lower	low	yes	no
CDs	v.high	medium	no	yes

In this paradigm, the original contrast set is the three kinds of securities (bonds, stocks, and CDs); the dimensions of contrast are "safety," "return," "capital gain," and "insurance"; the actual attributes for each kind of security (high, low, medium, etc.) are listed in the chart.

WRITING THE PAPER

Once students have completed the various research steps, I ask them to continue interviewing, using all the kinds of ethnographic questions as they apply. They continue to record interviews and build their data base. Toward the end of the semester, I have each student look for the problems or adaptive challenges that his or her particular culture seems designed to handle. For example, the railroad switchman culture studied by one student seemed largely organized to manage the problem of managing time and relations to an uncaring employer. Stock broker culture seemed to adapt brokers to the need to buy and sell stock for valued clients in an uncertain market better suited to long-term holding. Again, I ask students to make lists of "cultural problems" and share these with

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UPDATING OLMEC PREHISTORY

The hot and humid lowland tropical forests of Mexico's southern Gulf coast seem an unlikely environment to nurture early steps to civilization. However, from about 1150 to 500 BC that region's riverine floodplains and adjacent low uplands were the domain of the Olmecs, whose magnificent stone monuments and ancient ruins lay hidden for centuries beneath jungle vegetation. Eight years of research, initiated in 1938 by Smithsonian archaeologist Matthew Stirling, uncovered fabulous Olmec stone carvings, jade objects, and mound architecture. Coming from a region commonly thought inhospitable and marginal, the finds perplexed scholars. More perplexing was the great antiquity Stirling assigned to his discoveries. The sophistication of the Olmecs seemed out of place in both time and space. While their apparent precocity soon led scholars to perceive them as Mesoamerica's first civilization and "mother culture" to all of its later civilizations, the origins of their complexity, and of the Olmecs themselves, seemed puzzling.

Today, a half century later, access roads crisscross much of the area, and most of the tropical forest vegetation has been removed for cattle ranching, sugarcane production, and petroleum exploitation. In this new light, and with a greater understanding of early agricultural societies throughout Mesoamerica, scholars are reevaluating and clarifying many of the traditional interpretations regarding the Olmecs. While these ancient people were unquestionably precocious and the creators of many sophisticated works of art, their rise and fall, religion, interactions with other peoples, and legacy to subsequent civilizations are understood quite differently today than previously imagined.

EARLY RESEARCH AND PERCEPTIONS

The foundations of Mesoamerica's great civilizations were laid during the Formative (or Preclassic) period. Primarily on the basis of marked extra-regional changes in certain common ceramic and figurine types, archaeologists have subdivided the Formative into Early (2000 to 900 BC), Middle (900 to 500 BC), and Late (500 BC to AD 100)

periods. Within that span of more than 2000 years, Mesoamerica witnessed the change from simple agrarian societies to state-level, urbanized population aggregates. Much of the evolution and spread of cultural complexity during the Early and Middle Formative traditionally has been credited to the Olmecs, commonly regarded as the dominant and influential cultural force of their age.



Olmec scholarship was initiated with Matthew Stirling's pioneering research in southern Veracruz and Tabasco states. Particularly significant were his 1942 and 1943 excavations at La Venta. Drawn to the site by the presence of Olmec colossal stone heads, thrones ("altars"), and stellate, Stirling and his associate Philip Drucker focused their investigations on a large plaza immediately to the north of the site's tall (32.3 m) earthen pyramid. Their finds were astounding. Excavating along the plaza's centerline, they uncovered colored clay floors, caches of polished jade celts, a carved stone sarcophagus in the form of an Olmec supernatural creature ("tigre") and a large "log" tomb built of columnar basalt. Burial paraphernalia--jade jewelry and figurines--lay on the tomb floor. Excavations beneath a nearby platform mound revealed an immense (27 m) serpentine mosaic pavement. The multitude of stone objects was extraordinary for a locale bereft of stone resources.

Whereas scholars now realize that those magnificent discoveries date to the culmination of Olmec complexity (about 700 to 500 BC), they were uncovered at a time when little else was known of the Olmecs, and dating was uncertain. The finds

became an archetype for defining the Olmecs and for drawing comparisons with other early Mesoamerican societies, who consequently appear less sophisticated. That perception strongly influenced archaeological interpretations throughout Mesoamerica for decades thereafter.

THE OLMECS

The magnificent stone monuments found at Olmec sites make their society recognizably unique among Mesoamerica's early agriculturalists. Particularly striking are colossal heads, three-dimensional portraits in stone of various Olmec rulers. The motifs incorporated into many of their head coverings seem idiosyncratic to those individuals, i.e., they may represent simple "naming" devices. Identified rulership is, in fact, perhaps the most important aspect of all forms of Olmec monuments. Those rulers are shown seated in the frontal niches of the great Olmec table-top thrones, seated and standing in three-dimensional statues, and in bas-relief on large stelae.

Olmec monuments are clustered in and around four large sites. Two of them, La Venta and San Lorenzo, are adjacent to major rivers and flood plains. To the west, in contrast, Laguna de los Cerros and Tres Zapotes are on upland plains extending outward from the Tuxtla Mountains. Their abundant monuments led to the discovery of each of the four sites and are one of several reasons leading archaeologists to believe that those sites were the major regional Olmec political-religious centers.

Today's archaeological knowledge of the Olmecs comes almost exclusively from excavations of limited areas of La Venta and San Lorenzo. Both are riverine sites, constructed above the flood plains on low hilltops which the Olmecs leveled and remodeled over time. Originally thought of as vacant ceremonial complexes supporting only a small priestly population, recent research projects at those sites have actively sought and located abundant household remains, and the sites are better viewed as the remains of thriving communities. However, despite the work of various research projects, the actual nature of the four major centers themselves and the layout and organization of their public mound architecture are poorly understood.

Complicating such research is the fact that all four are large, multi-component sites, with centuries of significant post-Olmec settlement and mound-building. Post-Olmec deposits frequently obscure all Olmec remains, and visible site size and mound configuration cannot be assumed to follow Olmec period patterns. That, together with the lack of detailed chronologies, makes it currently impossible to generate comparative assessments of the relative size and power of individual centers at particular moments in the course of Olmec prehistory.

Among the architectural features at both La Venta and San Lorenzo are parallel earthen mound arrangements that excavators suggest were courts for the rubber-ball game. In the Americas such games have great antiquity, particularly among societies in the tropics, the source of natural rubber. Rubber was produced on the Gulf coast in pre-Hispanic times, and it is not surprising that the Olmecs also participated in such games. Amazingly, several rubber balls were recently discovered together with other Olmec objects (including more than two dozen carved wooden heads), preserved in the mud of an ancient spring at the site of El Manati, near San Lorenzo.

Although four major centers can be identified, the remaining political hierarchy within the Olmec domain is poorly understood. The farmers, the majority of the Olmec population, probably would have lived in villages and hamlets lacking monumental art and public mound architecture. Those settlements are far more difficult to discover in a region of dense grasses, sugarcane, and centuries of alluvial deposits. Thus, the current understanding of the Olmecs is biased toward large centers, monumental art, and impressive ritual offerings. Beyond the knowledge that the achievements at the centers were supported by a population subsisting primarily on slash and burn maize agriculture, little more can be said of general lifeways or subsistence practice.

ORIGIN OF THE OLMECS

When archaeologists renewed excavations at La Venta in 1955 and still found no clear local antecedents to that site's sophisticated material culture, they nonetheless

recognized that the missing precursors might be found elsewhere on the site or within the Olmec domain. However, others perceived the "absence" differently and looked to distant areas of Mesoamerica where Olmec-like artifacts had been found, hypothesizing origins there [or overseas: see this issue's lead article]. Because the Olmec territory had barely been explored, such pronouncements were unquestionably premature. The Olmec's antecedents became much clearer two decades ago, when excavations at San Lorenzo uncovered a lengthy stratigraphic record which included more than four centuries of pre-Olmec occupation showing an in situ evolution into the basic complex of ceramics and stone art that archaeologists identify as Olmec. Comparably early materials have recently been recovered from sites on ancient river levees near La Venta.

Linguists now suggest that the Gulf coast ancestors to the Olmecs were speakers of a proto-Mixe-Zoquean language and, therefore, linguistically related to contemporaneous peoples of the Pacific coast of Chiapas, Mexico. Such a probable relationship is also supported by strong similarities between the early pottery of San Lorenzo and of coastal Chiapas at ca. 1500 BC. Because scholars once thought the Olmecs had spoken a Mayan language, it is interesting to note that about 700 BC some Maya-like "influences" do appear in Gulf coast pottery. It is not implausible, therefore, that the Olmecs' language underwent some "Mayanization."

MONUMENTS, WARFARE, AND REVOLUTIONS

Although warfare and disputes between Olmec centers or with neighboring societies undoubtedly occurred, such events are not currently evident in the archaeological record. The one data set that has customarily been interpreted as reflecting such violence--monument mutilation--has in all probability been misunderstood. The Olmecs' magnificent stone monumental art is nearly always found purposely damaged and mutilated. Heads and arms are missing from statues of rulers, faces have been ground away from bas-relief carvings and massive fragments have been knocked off table-top thrones. Only the colossal portrait heads survived relatively unscathed. The mutilation of the monuments has

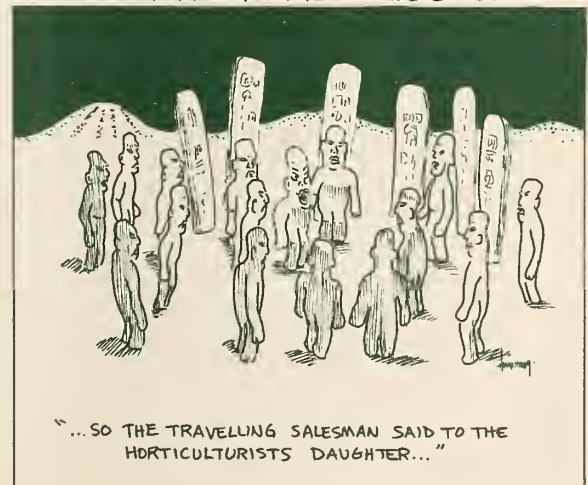
customarily been attributed to non-Olmec invaders or to internal Gulf coast revolutions. The iconoclasm is often said to have occurred twice during the Olmecs' prehistory once ca. 900 BC and again ca. 500 BC--coincident with the end of the Early and Middle Formative periods.

However, the monument destruction follows a very regular pattern over many centuries and across great distances and seems to have been a relatively continuous rather than sporadic act. It seems more probable today that monument breakage was carried out by the Olmecs themselves for symbolic, sacred, or ritual purposes. Many monuments are associated with specific rulers and some evidence indicates that a ruler's monuments may have been destroyed at his death. Two of the colossal stone heads at San Lorenzo were recently found to have been resculpted out of large rectangular Olmec thrones which implies that some throne mutilation may actually have been a functional, requisite step in converting them into colossal portrait heads.

EXTERNAL RELATIONS

Many of the Early Formative ceramics and Middle Formative greenstone objects labeled as Olmec in museums, archaeological collections and books, were actually found at sites far distant from the Gulf coast. Such artifacts are similar in form and iconographic motifs to those used by the Olmecs, and for decades they have been

SOLVING THE MYSTERIES OF THE OLMEC



interpreted as representing influences or trade from the Olmecs. Implicit in those interpretations is the belief that the Olmecs originated and dispersed those motifs and objects. Some scholars are now questioning the traditional interpretation. They point out that the artifacts in question are not uncommon and always constitute an integral part of local assemblages. This perspective treats the objects as locally created manifestations of a common Mesoamerican symbolic substratum which each society, including the Olmecs, used and modified somewhat differently. It does not presume *a priori* that the motifs and artifacts are in any way associated with the Olmecs, nor does it necessarily credit the Olmecs with influencing societal evolution across Mesoamerica. The newer non-traditional perspective can be called multi-regional as opposed to the long-standing Gulf coast-centric view. Whichever position one takes, current archaeological data and dating methods lack the precision to resolve the issue.

RELIGION AND COSMOLOGY

The Olmecs' religion included cosmological beliefs common to many Formative period societies and can be partially reconstructed from consistent patterns in the iconography found on Early Formative pottery and Middle Formative greenstone objects. The cosmos incorporated two basic realms: the world of humans--the Earth's surface--and an extra-dimensional otherworld, a realm with both celestial and underworld aspects that was the abode of supernatural forces. Peoples across Mesoamerica believed that certain geographic features of their landscape were sacred, particularly mountains, caves, clefts in the Earth's surface, and bodies of water. Such features were thresholds to the otherworld and its supernatural forces. Sacred landmarks were also symbolically replicated and incorporated into the building programs of the ceremonial centers.

Early identifications of feline features and jaguar deities in the art of the Olmecs seemed logical when first proposed, but were incorrect and thus led to decades of misunderstanding of the complex iconography. The most recent research suggests that the motifs on Early Formative pottery primarily depict two very un-feline

supernatural animals which are represented both as semi-naturalistic creatures and as highly abstracted motifs. They apparently represent the two major aspects of the Earth's surface upon which humans live: land and water. Land seems to have been conceptualized as a crocodilian floating in the primordial sea, and the motifs predominant in pottery depict that crocodilian or caiman-like Earth/earthly fertility supernatural. It is most commonly rendered as a stylized abstraction consisting only of its head in right profile (eye, flame-like supra-orbital plate, and upper mandible) and one foot or paw. The supernatural's upper mandible was used alone as a common symbol for the Earth's surface. The carved stone sarcophagus, which Stirling unearthed at La Venta, represents one of the finest portrayals of this saurian.

The second supernatural is associated with water, appropriately characterized by a fishlike body. Interestingly, it often has two sharklike features, a black U-shaped eye and a large protruding front tooth. Because it is normally executed as a highly abstracted motif, it was only recently identified. Actual sharks' teeth found in ritual context at La Venta, together with some iconographic evidence, suggests that this supernatural may have been related to ritual bloodletting.

The cosmology, rendered in material form and used to graphically sanctify various groups or activities within society, evolved concurrently with social complexity. By 900 BC it began to reflect a transformation underway in Mesoamerican societies, the emergence of more powerful elite groups. A third supernatural animal, the serpent, became important at that time, but only in the artistic media controlled by those elite groups. The serpent was a symbol closely associated with rulership.

WHAT HAPPENED TO THE OLMECS?

The end of the Olmecs may seem puzzling, but only because the archaeological stratigraphic record for that period on the Gulf coast, ca. 500 to 300 BC, is almost non-existent. Their demise, however, may have been nothing more than evolutionary.

(continued on p. 14, col. 2)

("Who Got to America First?" cont'd from p.4)

The hypothesis that important cultural transfer from West Africa to Mesoamerica occurred was first put forward by Prof. Leo Wiener of Harvard University in several books published between 1920 and 1926. A professor of Slavic languages, Wiener thought that he had discovered important linkages based on "sound-a-like" resemblances between the languages of the two areas. He also found what he considered to be other important comparative resemblances in materials as varied as women's hair styles and tobacco pipes.

Wiener's researches were the impetus for Prof. Van Sertima's own involvement with this topic, and they now form an important bit of data for Afro-centrist historical arguments. Unfortunately current archaeological research in Mesoamerica fails to support any of the claims of Wiener and Van Sertima for direct connections between the two areas. Where were the African landfalls in Mesoamerica, and why are there no African cultural artifacts observable in the well-excavated sites of the Olmec of the Mexican coast? [Furthermore, the new chronology for the development of Olmec culture places its beginnings considerably before 700 BC (see David Grove's article).]



"WELL, I DON'T THINK ITS SO DANG MYSTERIOUS."

Until we have solid archaeological evidence to support other hypotheses, it can be said quite clearly that, No, Columbus was not the first to find America, nor were the Vikings, although they beat Christopher by about 500

years. Instead, it was small bands of Native Americans who first "discovered" the New World via the Bering Strait many thousands of years earlier. At present, although certainly not an impossible hypothesis, there is no credible evidence so far discovered that links any of the oft-cited Trans-Atlanteans with any archaeological discoveries in North America. As far as is now known, the Native Americans were the masters of their own fate. They produced their myriad diverse cultures throughout the New World independent of foreign intervention.

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Radner, Daisie and Michael Radner. *Science and Unreason*. Belmont, CA: Wadsworth, 1982.

Williams, Stephen. *Fantastic Archaeology: The Wild Side of North American Prehistory*. Philadelphia: University of Pennsylvania Press, 1991.

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[Editor's Note: More detailed discussions of the Kensington Rune Stone, Viking discovery of America, and Barry Fell theories are available from the Anthropology Outreach and Public Information Office, NHB MRC 112, Smithsonian Institution, Washington, DC 20560.]

"RETHINKING COLUMBUS"

Rethinking Columbus, a special edition of *Rethinking Schools*, consists of essays and resources for teaching about the Quincenary. Published in collaboration with the Network of Educators on Central America, this issue provides teachers and students with a Native perspective. Write: *Rethinking Schools*, 1001 E. Keefe Ave., Milwaukee, Wisconsin 53212; or call (414) 964-9646.

("Ethnographic Interviewing" cont'd from p. 8)

the class. I also ask students to look for cultural themes, the general propositions or core values that seem to tie different parts of an informant's cultural knowledge together.

The final product of student research is an ethnographic paper organized around some general observations about a micro-culture, but a paper that also contains ample cultural illustrations in the form of descriptions, taxonomies, paradigms, and informant quotes. If the paper is successful, the reader ought to be able to see the world, including its challenges and solutions, through the eyes of the informant and people like the informant. I feel the course is successful if after students have taken it they walk into new situations and ask themselves, "I wonder what the inside rules are around here? What am I supposed to do and say and why?"

Recently I visited a local restaurant where I found one of my ex-students waiting on tables. She came over and quietly spoke to me. "You are sitting in section six. This section has the most 'customers' during 'evening rush,' is good if you want to make 'high tips,' is too far from the kitchen for comfort, and requires you to walk around an awkward corner to reach it." Only a student who is also an ethnographer would say a thing like that!

ADDITIONAL READINGS:

Spradley, James P. and David W. McCurdy, *The Cultural Experience: Research in Complex Society*. Chicago: SRA 1972. Reissued by Waveland Press, 1988. This book contains four chapters for students describing how to do ethnographic research as well as 12 papers by Macalester undergraduates, which serve as examples.

Spradley, James P., *The Ethnographic Interview*, New York: Holt 1979. A more detailed, step-by-step set of instructions for doing ethnography based on teaching experiences at Macalester College.

Reference cited:

Sharon Saydah, "Closing the Deal: Ethnography of Car Salespeople.

"Unpublished Macalester College Paper, 1991.

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("Updating Olmec Prehistory" cont'd from p. 12)

Viewing the archaeological record is akin to viewing an incomplete photographic record of someone's life. In one snapshot you may see a teenager, and in the next an adult who looks somewhat like the teenager but the transition is missing. When did the teenager end and the adult begin? The Olmecs are known and identified by a series of specific pottery types, figurines, and monuments. It is not unlikely that over several centuries those "defining" characteristics were gradually replaced by new material features and social symbols, the Olmecs simply evolving out of their Olmecness. The next glimpse of Gulf coast prehistory shows us Tres Zapotes again, which continued to be occupied and which maintained a modified monument tradition, as one descendant of the Olmecs. Even the Classic period Maya appear to carry an Olmec legacy in their cultural baggage, particularly in their basic cosmos, use of monumental art to communicate political cosmology, and use of certain symbols of royal power in art and hieroglyphs.

[A longer version of this article can be found in *National Geographic Research and Exploration*, vol 8, no. 2, pp. 148-165, 1992.]

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Coe, Michael D., and Diehl, Richard A. *In the Land of the Olmec*, vol. 1, The Archaeology of San Lorenzo Tenochtitlan. Austin: University of Texas Press, 1980.

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Rust, W. F., and Sharer, R. J. "Olmec Settlement Data from La Venta, Tabasco, Mexico." *Science* 242:102-104, 1988.

Sharer, Robert J., and Grove, David C., eds. *Regional Perspectives on the Olmec*. Cambridge: Cambridge University Press, 1989.

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TEACHING MATERIALS FOR "SEEDS OF CHANGE"

Helpful teaching materials are available in conjunction with "Seeds of Change," The Smithsonian Institution Exhibition commemorating the Quincentennial of Columbus's voyages. A panel version of the exhibit, organized by SITES (Smithsonian Institution Traveling Exhibition Service) and the American Library Association (ALA), will travel to approximately 60 sites around the country. For information, write: American Library Association, 50 East Huron St., Chicago, IL 60611; for the SITES locations, write: SITES, 1100 Jefferson Dr., S.W., Washington, DC 20560. In addition, a poster show of "Seeds of Change," produced by SITES and USIA (U.S. Information Agency), will be circulated in English, Spanish, and French to over 170 locations throughout the world. For information on the U.S. distribution of the poster show, write to: Esther Mackintosh, Vice-President, Federation of State Humanities Councils, 1012 14th St., N.W., Suite 1007, Washington, DC 20005, or call (202) 393-5400.

The Columbus voyages and following expeditions began a period of cultural and scientific exchanges that dramatically changed the entire world. Five "seeds" were planted in that series of exchanges. Infectious diseases, the horse, and sugar were all introduced by the Europeans to the Americans; corn and the potato were taken from the Americas to Europe and beyond. *Seeds of Change: A Quincentennial Commemoration*, edited by Herman J. Viola and Carolyn Margolis, consists of an illustrated collection of scholarly essays. To order, write: Smithsonian Institution Press, Dept. 900, Blue Ridge Summit, PA 17294, or call 1-800-782-4612.

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Science Weekly offers 16 issues devoted to the five seeds of change: corn, potato, disease, the horse, and sugar. Each issue is written for seven learning levels of increasing difficulty so that teachers can select the level most appropriate for their students. Each issue contains appealing color graphics, puzzles, a lab, vocabulary, a problem, a challenge, and writing for science exercises. To order, write: Subscription Department, P.O. Box 70154, Washington, DC 20088-0154, or call (301) 680-8804. Cost: more than 20, \$3.95 per year.

Middle School

Seeds of Change: The Story of Cultural Exchange after 1492 by Sharryl Davis Hawke and James E. Davis, Addison-Wesley Publishing Co., 1992, 96 pp.

This excellent booklet, based on the exhibit and recent research by scholars at the Smithsonian, tells how each "seed" radically changed both the Old and New Worlds. The text contains an inviting layout, script, and color pictures and drawings. To order, write: Addison-Wesley, Jacob Way, Reading, MA 01867. Cost: \$10.36. Teacher's Guide: \$5.40.

High School

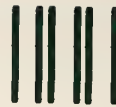
Seeds of Change: Readings on Cultural Exchange after 1492, Joint Project of the National Museum of Natural History, Smithsonian Institution and The National Council for the Social Studies, Addison-Wesley Publishing Co., 1993, 126 pp.

Based again on the "Seeds of Change" exhibit, this booklet contains four to five informative, engaging articles about each seed written by archaeologists, anthropologists, and historians. To order, see above address. Cost: \$10.36 each. Teacher's Guide: \$5.40.

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