

Anthro Notes

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NEW PERSPECTIVES ON AGRICULTURAL ORIGINS IN THE ANCIENT NEAR EAST

Introduction

How can a heap of long buried, extremely fragmented animal bones help us better understand the origins of agriculture, perhaps the most significant turning point in the course of human history?

Agriculture, which anthropologists define as both the domestication of plants and animals, changed forever the evolution of human societies. While agriculture brought about unparalleled productivity and ever improving standards of living, it also led to swelling populations, widespread hunger, and irreversible environmental change. It should be no surprise, then, that the causes and consequences of the origins of agriculture, often called the Neolithic Revolution, are recurring topics of lively debate within the field of archeology.

What were the preconditions that led to the domestication of plants and animals? Why did people nearly 10,000 years ago first begin to experiment with crops and the rearing of livestock? When and why did these practices replace gathering wild resources and hunting game as the primary means for feeding people?

Early 20th Century Views

Theories explaining the causes and consequences of agriculture have been not only varied but frequently contradictory. In

the late 19th through the mid-20th century, many researchers viewed agriculture as a technological breakthrough, forever freeing humankind from a life on the margins, from a mean, brutish existence that relied on wits and luck for survival. Agriculture, in this view, brought with it an era of bounty, with people reaping a rich harvest of predictable and nutritious plants and animals. This ability expanded with each new technological refinement--the plow, draft animals, irrigation. Farmers' labors were seasonal, affording leisure time to invent labor saving technologies as well as cultural elaborations in the arts and sciences. Early agriculture was the first major watershed, setting the stage for the subsequent grand threshold of human achievement--the development of civilization.

Mid-20th Century Views

During the 1960s and 1970s, the world became increasingly concerned with scarcities of primary resources and overpopulation, with people demanding limits to growth. In this climate a very different picture emerged of the origins of agriculture. The life of the hunter-gatherer, past and present, no longer was described as one of hardship, privation, and ceaseless toil. Rather, anthropologists saw hunter-gatherers as "the original affluent society"--people with modest needs met by occasional hunting forays and sporadic collecting. Agriculture was viewed as a



EXPULSION FROM EDEN ?

kind of expulsion from Eden, brought about by the inevitable expansion of population beyond the capacity of hunter-gatherer strategies to satisfy basic needs. The price of the pre-Neolithic baby boom, the punishment for taking the first bite of the domesticated apple, was the farmer's life of hardship and toil.

In this view, growing crops and raising animals provided more food, but the food was less nutritious and less palatable than people had previously enjoyed. Agriculture accelerated the rate of population increase, resulting in more widespread hunger than the world had ever seen. The reduction in biological diversity accompanying the spread of agriculture undermined the stability of natural resources, paving the way for periodic, devastating ecological crises.

These two alternative visions of the origins of agriculture, as blessing or blight, serve as opposite poles of the debate. Researchers are discovering, however, that the story of the development of plant and animal domestication and the resultant food producing economies is far richer and more complex than either of these two views.

Earlier interpretations, for example, posited that all peoples throughout the Near East adopted food producing technologies quickly and completely, never looking back

to earlier days of hunting and gathering. The wide array of suitable plant and animal domesticates, the favorable local environmental conditions, and the human population dynamics may well explain a generally rapid embrace of food production as a more reliable subsistence strategy than hunting and gathering. But within the Near East, the domesticates and the timing of their adoption varied, with each region emphasizing different combinations of cereals and animals in varying rates and sequences. The Khabur Basin provides one case study illustrating the variation in human adaptation to the development of farming and herding.

The Khabur Basin of Ancient Mesopotamia

The Khabur Basin is nestled in the far northeastern corner of modern-day Syria, bordered by Turkey to the north and Iraq to the south and east. The northern Khabur Basin is dissected by the Khabur River and a number of streams (or wadis, as they are called in the Near East) fanning out across the basin. These wadis are often dry in the searing summer months. During the late fall through the spring, they carry seasonal rains and runoff from northern upland areas. These seasonal streams converge where the Khabur River begins its journey southward, eventually joining the Euphrates River. There is a steep north-south gradient of rainfall in the

Khabur Basin. In the far north, there is more than enough precipitation to support rain-fed, non-irrigation based agriculture, but rainfall levels decrease precipitously as you move southward, where rain-fed farming becomes an increasingly risky business.

Early Settlement in the Khabur Basin

Settlement in the Khabur Basin was sparse up until about 6,000 B.C. There are no sites known in the region before 14,000 B.C. and only two sites date between 14,000 and 10,000 B.C. The eighth millennium B.C. (8,000 to 7,000 B.C.) saw the introduction of farming and herding into the Basin. For almost 2,000 years a few small communities, located exclusively in the better-watered northern region, relied primarily on domestic resources: cereal grains, lentils, and pulses (pod bearing plants such as peas and beans), as well as sheep and goats, and later pigs and cattle. Then the northern steppe witnessed a substantial increase in settlement. A number of farming communities arose in the upper Khabur Basin, all of which produced a distinctive pottery, linking them to a Halafian cultural tradition that spread widely across Northern Mesopotamia.

The Halafian Period, named after Tell Halaf in the northern Khabur, is believed to have experienced a remarkable proliferation of rain-fed farm communities, an expansion of far flung trading networks, and, possibly, the development of more complex social organization. From what we know of the plant and animal remains recovered from Halafian sites in well-watered areas, these communities relied heavily on domestic crops and live-

stock, although a small amount of wild plants and animals were also gathered and hunted.

Umm Qseir

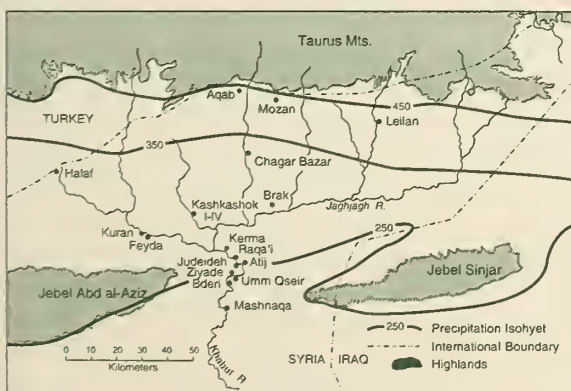
The first indication of population movement out of the northern steppe into the arid southern steppe comes from Halafian levels at the small site of Umm Qseir, situated just below the 10" (250 mm) rainfall boundary. Umm Qseir is located about 19 miles (30 km) away from the nearest contemporary site and is very small: no more than a quarter of an acre (1/10 hectare) in size. Excavators from Yale University found only ephemeral traces of architecture at Umm Qseir and essentially no tools used in grain harvesting and processing. The entire Halafian occupation of Umm Qseir seems to have lasted no more than 200 years, between 6,000 and 5,000 B.C., and the site was probably never occupied by more than two or three families. We originally thought this tiny Halafian outpost was a seasonal encampment, used by small groups who traveled with their flocks from established villages in the north to take advantage of the abundant southern spring grasses.

Animal Bone Analysis

Through extensive analysis of the plant and animal remains from Umm Qseir, we tested our first hypothesis that the site was a seasonal encampment of mobile herders or pastoralists. Our analysis demonstrated this hypothesis to be absolutely dead wrong!

Through the painstaking, sometimes frightfully dull study of thousands of broken bones and fragments of charred seeds, we uncovered clues to reconstruct the daily subsistence of people living in this tiny community in Mesopotamia between 6,000 and 5,000 B.C.; the clues told us much about the complexity of these people's yearly strategies to survive.

An average season of archaeological excavation in the Near East can yield upwards of 50,000 bones, each of which is of interest to the zooarchaeologist who specializes in studying animal bones. The



bone analysis requires an incredible amount of patience and a sharp eye for seeing patterns after thousands of observations have been recorded. Bones first have to be washed and dried, sorted, labeled, and coded for a variety of information: animal species, skeletal element, side, type of breakage, and so on. The zooarchaeologist makes these observations, often using skeletons of modern animals to help identify broken bone fragments.

The bones and teeth of an animal carry hidden clues to the age and season during which that animal was killed. Long bones (such as the femur or radius) fuse at certain known ages. If you find an unfused distal end of a sheep humerus, you know that that sheep was killed before it reached its first birthday. Like human children, mammals lose their baby teeth, and their adult teeth erupt at known ages. The rate at which teeth wear with use over time also is known for some animals as is the peak birth months.

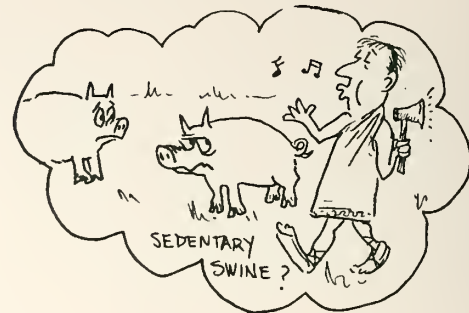
The zooarchaeologist uses this knowledge when analyzing bones to calculate the age, and, in some cases, the season in which an animal was killed. With a large enough sample of bones, an age profile of the flock and the primary seasons in which the animals were slaughtered can be identified. From this profile, a range of conclusions can be drawn about the relationship of humans to the animals with which they lived--both domestic and wild.

The Puzzle of Umm Qseir

Pigs Offer the First Clues

Was Umm Qseir a seasonal settlement for pastoral herders coming down from the North, or was it a year-round settlement? Domestic species utilized by residents of Umm Qseir in the 6th millennium (6,000-5,000 B.C.) consisted of sheep, goat, and pig, but no domestic cattle. The absence of the full range of Neolithic domesticates (sheep/goat, pig, and domestic cattle) at first supported the hypothesis that Umm Qseir was a site for pastoralists taking seasonal advantage of the lush late winter/early spring pasturage in the region.

However, pigs did not fit easily into this scenario. Pigs have neither the legs nor the temperament for long distance migration, and, though there are some instances of pig drives in the past, swine are not customarily associated with pastoralists in the Near East. In fact, pigs are usually taken as markers of a sedentary life style.



It was possible, however, that Halafian Umm Qseirians drove a pig or two down to the area each spring along with their domestic sheep and goats. Information on both the age and, especially, the season of death of the pigs consumed at Umm Qseir was necessary to resolve this question. Based on an examination of pig teeth from Umm Qseir, we knew the slaughter of swine at the site focused on animals between 6 to 18 months of age. This is a common culling (slaughter) pattern for domestic swine. Yet, although there is an emphasis on young pigs, the kill-off of swine at Umm Qseir was not confined to piglets. There were also older animals, in the 3 to 4+ year age range, indicative of the presence of quite elderly swine at Umm Qseir. Not just one or two pigs were brought to the site each season, but, rather, a viable breeding herd must have been present.

Strong seasonality in kill-off of pigs at Halafian Umm Qseir also took place. Slaughter of swine seems to have been most common from May to October, particularly from August through October. This period includes the arid summer months and the early rainy season--the leanest resource period in the region. Intensity of swine slaughter slackens in the months between November and April, the period of greatest bounty of plant and animal resources in the middle Khabur.

Sheep and Goats Offer Additional Clues

We tentatively concluded that pigs were present at Umm Qseir throughout the year and that at least some Umm Qseir residents lived here on a permanent basis. But did all the residents live here all year long? Perhaps just a few people resided here year round, eating pigs in the hard times, to be joined by pastoralists in the late winter/early spring, pasturing their sheep and goats. We needed to look carefully at the sheep and goat age and seasonality data to help give us the answer.

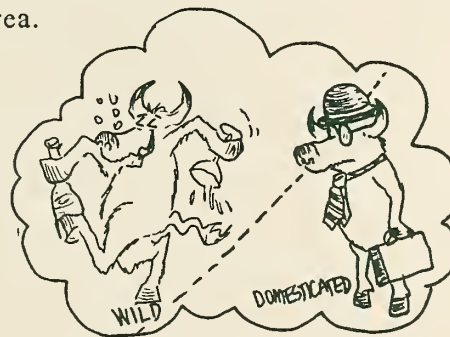
Sheep and goat age distributions indicate an emphasis on culling animals in the 1 to 2.5 year range. Once again the bones told us that both young lambs and kids and older sheep and goats were eaten at the site. Seasonality data indicate relatively low kill-off in the first six months after birth (from February to July), and a peak in slaughter of lambs and kids in the second six months (between August and January). In the following six month periods, mortality consistently slackens in the late winter/early spring months, and increases in the summer and fall. Once again, it is these months of hot, dry summer and sodden unproductive early rainy season that are the hardest on herds in the region today. This is the most likely season for kill-off of domestic sheep and goats from resident herds. It is, however, the least likely season for pastoralists to be here, since these are the hardest months in this region.

If these animal bones had been the result of nomadic pastoralist culling, they would have reflected a kill-off in the late winter/early spring, when flocks would have been brought to the southern region to feed on the luxuriant spring grasses of the steppe. In addition, there would be a virtual absence of animals in the more stressful dry summer/early winter months, when pastoralists with their herds would have headed north.

Wild Animal Clues

The biggest surprise from this collection of bones did not come from domestic animals, however, but from wild ones. Unlike

contemporary and earlier sites on the northern steppe--where domesticated animals are overwhelmingly the most commonly eaten in early farming villages--at Halafian Umm Qseir, bones of domestic animals comprise less than half of the bone sample. Wild species dominate! People were eating gazelle, wild ass, wild cattle, deer, hare, turtles, fish, birds, and fresh water clams--all the local wild resources in the area.



Seasonality data for the Umm Qseir gazelle adds to our understanding of the subsistence economy. The advanced state of wear on many of the gazelle lower deciduous third molars, a tooth that is shed at about 14 months of age, indicate that these animals were hunted and killed around the time of their first birthday. Since gazelle in the region give birth in March and April, this means there was special emphasis on spring gazelle hunting. Wild game attracted to the region to feed on the tasty spring grasses would have been easy prey during this time of year.

Final Clues From Plant Remains

Plant remains from Umm Qseir reinforce the picture painted by the faunal (animal) data; the site must have been occupied year round. Contrary to our initial hypothesis, Halafian occupants of Umm Qseir were not pastoralists, but rather pioneering farmsteaders. People came to this previously uninhabited region, bringing with them their domestic sheep, goats, and pigs, as well as domestic crops--in effect carrying with them the basic elements of the Neolithic Revolution. In this relatively untouched environment with its plentiful wild resources, these early settlers did not march lock-step to the drum of the Neolithic Revolution. They did not settle down to a traditional village life based on

dependence on domestic resources. Nor did they use the area only as a seasonal feed lot for their domestic flocks.

Instead, Halafian Umm Qseirians took full advantage of the natural (wild) riches of this new environment in its seasons of plenty, while relying on their domestic resources to tide them through the lean times. Spring was the most bountiful season at Umm Qseir--a time when crops of emmer, barley, and pulses were harvested, and when wild game feeding on the abundant spring growth of the steppe was easy prey. During the hotter summer months and into the unproductive winter season, when game was likely more dispersed across the steppe, Umm Qseirians could rely on stored grain, fall fruiting wild shrubs and trees, and their domestic stock of sheep, goat, and pig.

North and South Khabur Basin Compared

Subsequent and ongoing analysis of animal and plant remains from 17 sites in the Khabur Basin demonstrates that Umm Qseir is not unique, but part of an increasingly interesting and unexpected picture of post-Neolithic subsistence in the region. These sites date from the first introduction of domesticated plants and animals into the region (8,000 - 7,000 B.C.) through the rise of the first state-level societies (3,000 - 2,000 B.C.). Village communities in the better watered, more densely populated north (today a highly productive dry farming zone) followed the expected post-Neolithic subsistence pattern, with increasingly exclusive reliance on domestic crops and herd animals. Even so, there is evidence that wild animals remained relatively plentiful in the area up through about 3,000 B.C.

In contrast, for more than 2,000 years, small isolated communities on the drier southern steppe developed highly localized subsistence practices. Residents of the southern steppe mixed and matched selected domesticates with a heavy dependence on a variety of wild resources. People of the more arid, marginal, sparsely populated area apparently compensated for the unpredictability of a high risk environment by expanding their resource base to include

both domestic and wild resources. Significantly, the greatest dietary eclecticism seems to be found not in the fertile heartland but in the more arid frontier. In the more difficult environment, people met the challenge by combining their earlier reliance on wild game with newer domesticated resources.

Conclusions

There are no more herds of wild animals on today's treeless steppe. The rich diversity of wild plants that once supported these herds has been replaced by mono-crop irrigated fields and by highly degraded pasture in outlying areas. The long term environmental impact of intensive agro-pastoral economies on wild resources in this region is inarguable.

Our information, however, indicates that the onset of environmental degradation did not immediately follow the introduction of farming and herding. Early inhabitants of this region mixed agriculture and hunting/collecting without significant ill effects on indigenous wild species of plants or animals. Significant ecological change accompanied the urban based, agricultural economy several thousand years after the establishment of the first farming communities in the region. The small sample of plant remains studied from 3rd millennium B.C. sites on the southern steppe indicates that by this time hardwoods had been replaced by fast growing shrubby plants, and animal dung had become the primary fuel source--the first fuel crisis in prehistory!

What does this case study of subsistence in the Khabur Basin tell us about the consequences of agriculture in the Near East? The impact of the Neolithic Revolution was not nearly as uniform, nor as irreversible as is sometimes portrayed. The realities after the "Revolution" do not conform to theories that see the origins of agriculture as either a technological blessing or an environmental blight locking people into an economy based solely on domestic resources. Once people became farmers and herders, many still continued to practice hunting and gathering, mixing

old and new strategies. A technology once discovered need not shackle people into its exclusive practice; a social organization or an economy once established need not be an immutable obstacle to cultural flexibility or human ingenuity.

For Further Reading

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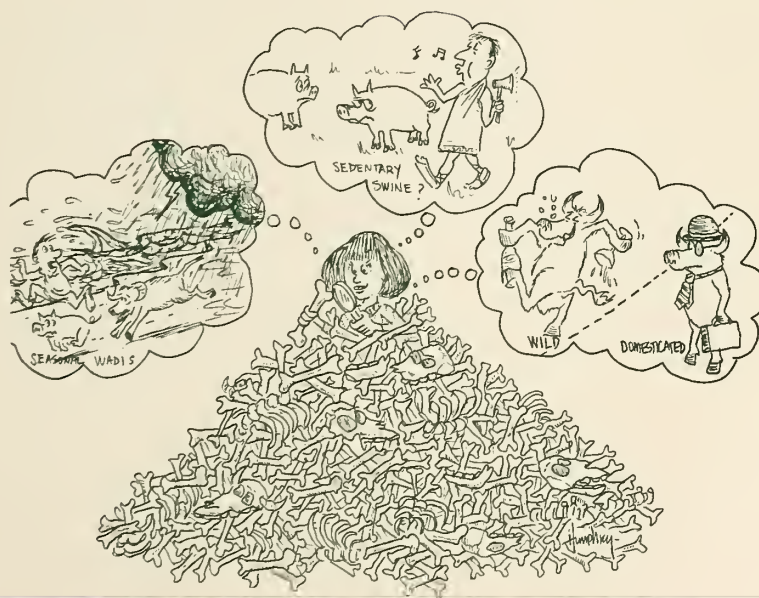
MELINDA ZEDER TALKS TO ANTHRONOTES EDITORS

At nine I decided to become a Near Eastern archeologist, inspired by my mother who was writing an historical novel about the Egyptian Pharaoh Akhenaton. Alone, she

sailed up the Nile River and came home with fascinating stories of ruins and digs.

As a high school junior, I went on my first dig in Taos, New Mexico; by the end of the field season I was hooked, and took anthropology as a high school senior. As a sophomore at the University of Michigan, I worked in the museum washing animal bones, which I realized were an under-utilized archeological resource. I also worked with scientists developing one of the first computerized coding systems for the analysis of bones, allowing us to process huge amounts of observations to profile age and seasonality patterns, among other things. It took eleven years of sorting, identifying, and analyzing over 100,000 bones from a single site (Tal-e Malyan) before I had enough data and conclusions on feeding early cities to write a dissertation that led to my first book.

For me, the fun and fascination of archeology is making big ideas talk to little bits of data, and have the data answer back in meaningful ways. From the beginning of my career, I wanted to explain how early communities began to depend on domesticates, since these communities eventually became the foundations of large urban centers leading to the beginnings of large scale civilizations.



THE TREETOP PEOPLE OF NEW GUINEA: A SUMMER FILM SPECIAL

Living in an unmapped, isolated region of Irian Jaya, the western half of the big island of New Guinea, the Korowai met their first anthropologist in June 1993--Paul Michael Taylor of the National Museum of Natural History, Smithsonian Institution. Curator of Asian Ethnology and Director of the Asian Cultural History Program, Taylor has devoted over sixteen years to the study of the languages, ethnobiology, and cultures of Indonesia.

Along with his research collaborator John Burke Burnett and student intern Norman H. Wibowo, Taylor travelled with a four-person film crew to this easternmost province of Indonesia, to begin research on the ecological history of the area, studying how the Korowai relate to their rainforest environment. The Korowai live in treehouses soaring thirty to ninety feet above the ground, building new ones every few years throughout their "gardens." A Korowai "garden" includes not only the small cultivated area below the tree house, but also all the rainforest in the clan territory. Those with rights to these gardens are known as the "lords of the garden."

The film follows Taylor and his entourage as they travel upriver by dugout canoes and then by foot through the rainforest where they negotiate mud and creek crossings and long "tightrope" walks across fallen logs. Pushing to the edge of the so-called "pacification line" (the line beyond which inter-clan warfare is still active and outsiders cannot venture), they trekked through flooded landscape, where the water on the "paths" between treehouse clusters often reached mid-thigh and contained clinging leeches.

Taylor chose this location with the help of former Dutch missionary Gerrit van Enk, who lived among the Korowai from 1983 to 1993. Neighbors of the better-known Asmat, among whom the late Michael Rockefeller collected beautifully carved



dugout canoes and elaborately sculpted house posts, war shields, spears, and body ornaments, the Korowai share some of these material culture objects such as shields and bows and arrows. Unlike the Asmat, however, the Korowai have never been the subject of anthropological study until now.

In addition to the film crew, three Indonesians were hired as kitchen crew and field site supervisors. These three, as well as Paul and his intern Norman Wibowo, knew the Indonesian language that serves as a lingua franca throughout the region of Irian Jaya, where there are over 250 local languages. A few Korowai had learned some Indonesian from the Dutch missionary van Enk, making it possible for them to tell Paul in Indonesian what their fellow Korowai were saying. Paul could then simultaneously translate from Indonesian into English for the film crew, and, at the same time, begin to learn the local Korowai language himself. As the film producer Judy Hallet explained, "Paul's language ability in the field was extraordinary to watch....Because he was so gentle and relaxed and the Korowai so trusting of him, he provided a perfect bridge between us and people whose language was completely unknown to us" (Hallet, personal communication).

According to filmed eyewitness accounts by Korowai adults, the Korowai and a few neighboring groups practiced cannibalism in the recent past. Taylor believes these filmed eyewitness accounts present evidence that will stand up to expert evaluation. Therefore, Western New Guinea

where the role of cannibalism still can be studied.

"Treehouse People/Cannibal Justice" is a collaboration between a scientist, Paul Taylor, and a film producer, Judith Dwan Hallet, working jointly with Hearst Entertainment/Arts & Entertainment Network (U.S.), Tele Images (France) and the Smithsonian Institution. Each kept a field journal.

While Taylor and Hallet shared many of the same goals for the film, they reveal different approaches, perceptions, and experiences in their "journals." Even their method of writing was different: Hallet made notes in the field, then created a "journal" after her return, based on her records, later recollections, and Taylor's translations of interviews he made in the field. Taylor wrote his journal daily, partly in English and partly in local languages. When he transcribed the journal later, he clearly distinguished annotations and translations made after his return from those made on-the-spot. In addition to expressing different perceptions, these two "journals" record amusing anecdotes, highlighting not only two cultures in contact, but two different people working in two very different professional roles.

HALLET writes (June 9, 1993): "In the film, we need to introduce New Guinea as a land of mystery, myths, headhunting.... We can show jungle, faces, stock footage of early expeditions.... We can talk about Michael Rockefeller and the Asmat." That same day, **TAYLOR** records, "Their original concept of filming the anthropologist going to 'contact' a previously uncontacted group of people is outdated: 1) 'contact' is not a genre of valid anthropological research, and 2) even if it were, everybody here is already 'in contact'."

On June 12, **HALLET** writes, "Paul is starting to learn Korowai. He says one of the best ways to start learning a language is by learning how to count." Three days later **HALLET** writes, "Paul is spending a great deal of time learning the genealogy. He says this is a good way to begin to learn

about a culture.... Paul says the kinship terminology is based on the Omaha skewing system.... For us it is practically incomprehensible and definitely too esoteric for our film." **TAYLOR** writes (June 15): "I translate introductions into English for the [film] crew. It's their first introduction to the Omaha kinship system, since several of Yakob's grandfathers are his age or younger. I used the example... that the Italian word for grandchild and nephew are the same (nipote); a 'skewing' of generations that reflects the old Omaha kinship system of ancient Latin. Thus the expression 'Omaha skewing rule.'"

On June 15, **TAYLOR** made the following entry: "The film crew finds the place 'beautiful,' 'gentle,' 'incredible,' etc.--and the filming schedule still dominates. But my own ideas and opinions are becoming surprisingly influential, since I'm the only one who can speak to the people here and interpret what they're saying.... they're sure they're supposed to film me doing science, but less sure exactly what that entails. Unfortunately, much of it [science] isn't 'filmic'." Later, in his journal (June 21), **TAYLOR** wrote of the interest the Korowai had in his field guide on birds. "Everyone regularly gathers around my copy of Beehler et al.'s *Birds of New Guinea*, discussing the many color plates. 'They think it's a menu,' someone on the kitchen crew said."

HALLET records some of the dialogue among the Korowai themselves in her journal. Such conversations were often recorded by the sound recordist (sometimes accidentally), and translated later. They illustrate a continuing Korowai bafflement at the unexpected presence of their guests, and a strong concern for their safety. For example, two Korowai men were recorded talking after they'd been asked to build a palm-frond shower-enclosure for the portable, hand-filled, solar-heated shower:

1st man: "What are they doing? Are they making a bird blind?"

2nd man: "No, they are making a shower."

1st man: "But there is no water there.
What a funny place for a shower."

Another conversation was accidentally recorded during a film sequence when a tree was being chopped down:

1st man: 'Be careful of the foreigners. They are climbing the platform, and we are cutting down the trees, and they could be in danger.'

2nd man: 'If they fall off the platform and get hurt, who is capable of carrying them? They are so big.'

1st man: 'Oh that would be impossible! No one is strong enough to carry them.'

Near the end of their stay, TAYLOR laments the lack of time for intensive interviews (June 27): "Judy, Reuben, et al. [the film crew] are understandably frustrated by the lack of visual excitement in these interviews. The informant who allowed a major breakthrough in the interpretation of cannibalism is the village chief of Manggel--not a photogenic character to begin with, and less so since he insists on wearing his one t-shirt (that says 'Cartier' on it). He's very much an outsider here, in many ways, as a government-appointed village chief...but he's...a central character in the modernization of the region."

The film traces Taylor and Hallet's journey deep into the rainforest, to ever more remote tree house clusters, where they begin to hear about the role of cannibalism in the Korowai recent past. In his journal entry (June 25), TAYLOR states: "I'm now beginning to think of cannibalism as part of the Korowai criminal justice system, and to think there are two kinds: 1) the sentence of death followed by cannibalism given to criminals on an individual basis--in which a clan expels one of its own members to be killed and eaten by a neighboring clan with which it maintains reciprocal arrangements for carrying out such sentences; and 2) the murder and cannibalization that is the consequence of interclan warfare, in which an enemy may be killed and eaten." The "second kind is widely reported but the first kind...is an exciting new discovery."



HALLET on June 25 writes in her journal: "The chief of Manggel, Funayare, describes in great detail how you kill and eat someone....With such detailed description of cannibalism, we decide to film a series of illustrative but abstract scenes by the river. The men can build a fire and wrap sago leaves around the stones and cook the sago over the burning coals. These scenes can play over Funayare's explanation of cannibalism...Although we never saw it, there is definitely cannibalism practiced here...Paul says it is as bad to define the Korowai as a culture that simply practices cannibalism as it would be to define the American culture based on capital punishment and death row."

Taylor pointed out that many of the plants and animals in this lush environment are unknown or of rare species, found nowhere else in the world. He collected, often with the help of the Korowai, samples of rare insects, snakes, mammals, and plants for an Indonesian university that is collaborating in his research.

The film, "Treehouse People/Cannibal Justice," will be shown on A&E Entertainment Network, Sunday, July 10, 1994 at 8 p.m. Teachers and students studying Southeast Asian cultures, rainforest ecology, and geography, world history, and anthropology will enjoy this informative and visually beautiful film.

Ann Kaupp

TEACHER'S CORNER: BEYOND THE CLASSROOM WALLS

[Editor's Note: Working in the Appalachian region of Southwestern Virginia, Radford University anthropologists Melinda Bollar Wagner and Mary B. La Lone have inspired their classes to work together on collaborative, semester-long, ethnographic field projects related to the local community and culture. Wagner, who teaches Appalachian Cultures and the Anthropology of Religion, discusses what influenced her to change her teaching and describes an Appalachia book project. La Lone redesigned her course in Economic Anthropology to make the subject "come alive" for her students through studying flea markets. The two class projects described below can be adapted for students anywhere.]

UNIVERSITY STUDENTS CREATE A CHILDREN'S BOOK

Over several years and under the influence of the University's "Writing Across the Curriculum" program, I cautiously became more "experimental" in my use of writing assignments for my anthropology classes and less "hardline" about requiring a 10-15 page research paper. It was evident to me that many of the research papers did not reflect the kind of student involvement and caring that produces strong writing. The student-written *ABC's of Appalachia* book project accomplished three objectives: teaching its student authors about Appalachian cultures and how they are perceived; enabling my class to work together on a collaborative project; and offering students real motivation and training for producing strong prose.

Over ten years ago, one of my classes and I decided to write a children's book about Appalachia because we realized there was little information about Appalachia for young children. The Appalachian students in class said there had been little recognition of their cultural heritage in school when they were growing up. One told us: "Virginia history was Tidewater history; we never learned anything about the area we lived in."

The students agreed they would like to "capture" children at a pretty young age and get them interested in Appalachia. For non-Appalachian students this would aid in their understanding and communication; for Appalachian students, it would help instill pride in their heritage and identity.

We decided the book would have an "ABC's" format, with one page of text and one illustration for each letter. We divided up the alphabet, each student taking on two letters, assigned by lot.

Because the student authors thought they could not say some things at a child's level, they decided to write a manual for parents and teachers titled *Beyond the ABC's of Appalachia*. The authors tried to anticipate questions the children might ask, to suggest activities, and to elaborate on each of the topics at an adult level of understanding. The manual contains an annotated bibliography of all sources consulted.

Writing The Book

The book-writing project was like a research paper in that it did not take away from class time; the work took place outside of class or in very short discussions before or after class. The students also wrote abstracts summarizing their assigned readings and weekly journals setting their own ruminations on paper.

Each student wrote a prospectus including ideas for a book title, the age group for the book, the purpose and need for the book, its proposed content and format, proposed topics for specific letters, and an annotated bibliography. Later came a rough draft of each letter and a group meeting to critique the draft. The writings, convoluted in style and overrun with social science jargon, often sounded like mini-research reports, which the authors noted would not hold their own interest, much less the children's. We, therefore, decided to meet with an education specialist to help us write at a child's level. Prior to consultation, an early draft of "B is for Banjo" read like this:

The banjo is a very popular instrument in many types of music including a great deal of Appalachian country, gospel, blue grass and folk music. Playing the banjo is an important part of Appalachian culture because it provides entertainment; it is a good way of expressing feeling and it is a great leisure time activity....

With more work and consultation, this evolved into:

Within these tall mountains and quiet valleys, there is a very special kind of music that is made by a family of instruments. One of these is the banjo.... Many banjo players in Appalachia make their own banjos. Could you imagine making one instead of buying it from the store?

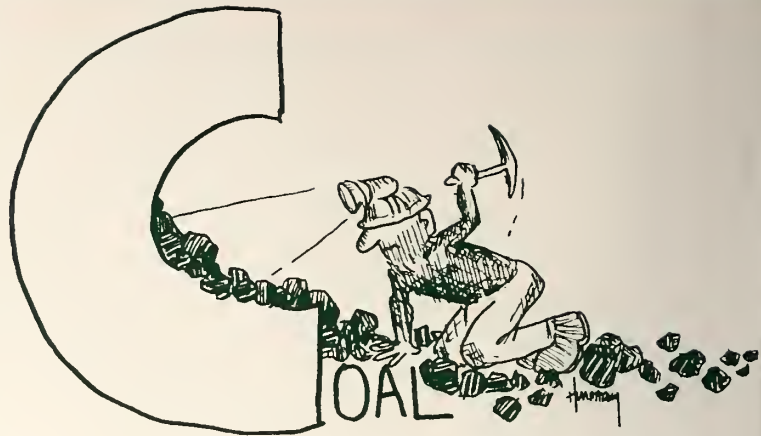
A few examples of some of the other letters and their subjects include: "A is for Appalachia," "C is for Coal," "D is for Dulcimer," "K is for Kinship," "Q is for Quilts," "S is for Square dancing," "T is for Tanning Hides," "U is for Urban Appalachians," "X is for Xenophobia," and "Z is for Zither."

The final phase of the book project included the final drafts, typing and proofreading, cover design, printing, distributing copies to the class, and an after class "autograph party" to celebrate the class's sizable achievement.

Advantages of the Book-Writing Project

The authors learned about Appalachia and images associated with it as they determined what was important for a child to learn about the region. Another advantage, not one I had planned but one mentioned by the class in their evaluations of the project, was that the joint experience brought the class closer together. Students said they enjoyed "getting to know the people in the class" and "working with the whole class as a team." They thought "the class got more relaxed and closer."

An added benefit, one I had on my hidden agenda, was the improvement of the student authors' own writing as they worked and reworked a few pages of text, over and over



again. I felt these students cared more about their piece of this group-written book than previous students in the same class had cared about any individual research project. The students' concern with their writing was evident in many ways. Work on the project began early and continued all quarter; students made and kept deadlines; they actively searched for source materials; they cooperated with each other by sharing information and resource materials; they shared the results of their writing with one another; and they critically responded to one another's work. As students worked, they generated an almost tangible pride in the book and concern that it be good and look attractive.

At the end of the course, I learned why students cared more about this project than writing a research paper. They said, "we can't get excited about writing something which only you will read and then only once"; "we learned more writing this book than doing an individual project because we heard and read what others in the class had discovered about a wide range of subjects"; and "if we had done research papers, we would have picked topics we already knew a lot about, so it wouldn't have been so much work." I was floored by their honesty and dismayed at the prospect of reading research papers in future courses.

A fourth, unexpected benefit was that the class became a microcosm of today's scholarship in Appalachian studies, as students worked through what should and

should not be included in the book and how various subjects should be handled. Students clearly learned a great deal about Appalachia and developed insights into the state of Appalachian studies.

The project brought up controversial issues scholars face in Appalachian studies. The study of Appalachia has historically been represented by two sides: the hard element (politicoes) who ask "Which side are you on? Do you want to ignore and/or maintain an oppressive status quo, or change things?" and the soft element, the ones who say they are on neither side, but instead are observing, trying to understand. In their original prospectuses, the students wrote that the book should be realistic, pleasant, and entertaining, and not "stereotypical." We argued about the mix of "realism" and "pleasantness" the book should have. For instance, should "O" be for Oppression (or Outside Ownership of land and minerals) and "P" for Poverty? "No, that's too harsh for children," said some of the students. "But it is real," countered others. One student reminded us that we were building a stereotype of our own, but that it would be a more balanced and positive one, and thus a worthwhile project to do.

A second issue in Appalachian studies focuses on "insiders" vs. "outsiders." Occasionally someone says that outsiders have no business studying Appalachian cultures and that they especially have no business taking on elements of Appalachian culture, since it can not be worn like a pair of boots. Anthropologists counter that this strikes at the very heart of the anthropological enterprise, understanding a culture by becoming a participant observer, taking on an insider's/outsider's role. At other times, an academic born and raised in Appalachia will state what "we Appalachians want/need"; it is hard to imagine that he is speaking for all Appalachians everywhere. Outsiders, on the other hand, say insiders cannot be "objective" as social scientists seek to be.

We had both insiders and outsiders in the class. Even the insiders' backgrounds varied --some hailed from coal fields and others from farm counties. The Appalachian students recalled that at various times in

their lives they had felt bewildered by differences between themselves and their student colleagues. At other times they had been proud of their differences. Sometimes they wanted to be more like the students around them, judging those ways more functional in middle class American life. Some made a conscious effort to sort through their own cultural traits and decide which to keep and which to jettison. Some thought they were bicultural--able to take on the style of the middle American or the mountain person, changing as the setting required.

By and by, the non-Appalachian students confessed that they held stereotypes about Appalachian people and culture, and they felt different from the local students. A simple example is the willingness of locals to say hello to a stranger while walking on campus. The students from northern Virginia viewed this familiarity as strange, even threatening. The kids from the Highlands felt threatened when people did not say hello.

Student evaluations of the project indicated that it was "highly motivating." "It would be great if everything we wrote would be used. Then we might be inspired to strive for perfection." "Our efforts weren't solely going for a grade." Indeed, the students' work was used. The class received a grant from Radford University Foundation's Faculty Instructional Development Program to create multiple copies of the two books and distribute them to school teachers and pupils. The teachers evaluated the books, and some of the student authors reworked them for Independent Study credit. The improved books were distributed widely--from Girl Scouts in Virginia to the San Francisco Bay Area Writer's Project (carried there by Writing Across Curriculum leaders who visited Radford University). Student authors were asked to discuss the project at a half dozen conferences for teachers and Appalachian Studies scholars. Eleven years later, we still get requests for *The ABC's of Appalachia*.

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THE FLEA MARKET: AN ECONOMIC ANTHROPOLOGY CLASS PROJECT

How could I design an economic anthropology course to make it "come alive" for my students? I have found that experiential class projects add an important dimension to the learning experience by enabling students to apply their readings and lecture materials to real-life situations. As an anthropologist I believe strongly in using experiential projects that immerse students in a local culture, providing a long-term, deep involvement inside the culture rather than just a quick, outsider's look at the culture. For this class, I especially wanted to enhance the reading and discussion of marketplaces and market vending (a focus of my own research). Since the marketplaces outside the U.S. seem too remote and not relevant to the students' own lives in a mass consumer, mall-based economy, I looked around the New River Valley for a semester-long experiential project. I soon realized that the marketplaces of Peru and Mexico look very similar to something the students have in our own local culture--the open-air marketplaces we call "flea markets." And so the flea market project developed as a semester-long class project for my Economic Anthropology class.

Description of the Class Project

To the casual observer, American flea markets are chaotic jumbles of odd people selling displays of junk. Through the class project, students learned that the flea market is far more intricate than might appear on the surface--a highly complex structure consisting of multiple layers of social and economic interaction.

The class focused their study on two aspects of the marketplace: 1) the structure and organization of marketplaces; and 2) the types of vendors selling in the marketplaces. The students divided the marketplaces into three categories ranging from the smallest (yard sales) to the largest (the biannual Dublin Flea Market). Intermediate marketplaces included weekly marketplaces located along major roads and in parking lots. The students studied differences and similarities in the types of vendors by

interviewing them about their activities and the reasons they sold in the marketplace. Students documented various ways vendors used the marketplace in their overall livelihood strategy.

In class, students received related reading assignments (the professor's own work in Peru and Rhoda Halperin's study of flea markets in the Kentucky region of Appalachia), learned how to conduct fieldwork, and discussed the ethics of interviewing [see James Spradley, *The Ethnographic Interview*, 1979.] Students met weekly to discuss their progress and problems, to share information, to plan subsequent stages, and to divide the work amongst themselves.

At the end of the semester, each student turned in a paper containing 1) an analysis of the group's research findings on market places in the New River Valley, and 2) a cross-Appalachian comparative analysis of the group's findings with Halperin's study of Kentucky marketplaces. The quality of the research and the papers was impressive. The written evaluations and oral testimony indicated that the majority of the group thought the project was an important part of



their learning experience. In fact, four undergraduates asked to continue their participation beyond the semester.

So the flea market project grew into a longer independent study project designed to give the students experiential training in all stages of the research process from participant-observation, to data analysis, to professional paper presentation.

The Role of Participant-Observer

The students assumed the role of participant-observers in addition to using the techniques of mapping and interviewing. They rummaged around for things to sell and rented spaces at the Dublin Flea Market on a number of occasions, setting up their own displays to become market vendors. This experience opened up a whole new world for the students. Clearly looking like naive "newcomers," students received unsolicited help from seasoned vendors who clued them in on the social rules of the marketplace and gave them tips on how to sell their items.

Becoming fellow vendors or "insiders," the students were told things about the marketplace they probably would not have otherwise learned, such as social norms among vendors, selling strategies, personal attitudes about flea market selling, personal reasons for selling (i.e., making deep friendships), kinship relationships among vendors, and ways vendors used vending as one part of their multiple livelihood strategies. The students learned that flea marketing was not strictly an economic activity; many vendors enjoy the friendly atmosphere in which they can expand/solidify their social networks. Students came to realize they were learning far more by becoming participant-observers than just by observing or even by interviewing.

This project gave me an opportunity to guide my students through all stages of an anthropological research project--from fieldwork, to the analysis of the data, and then to the final stage of writing. What started as a class project for an economic anthropology class in the Fall of 1991 grew into a one and a half year learning/research

project for four undergraduates, who eventually presented a collaborative paper at a regional professional meeting, a real capstone to this class project and to their experiences throughout.

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* * * *

EPILOGUE: The success of Wagner's and La Lone's first class field projects led to additional, more recent projects. Wagner's students in an Anthropology of Religion course analyzed the relationship between conservative Christianity and American popular culture by comparing the commercial products of each, seen through novels, message buttons, bumper stickers, etc. In 1993, La Lone's students assisted a local Appalachian town with a grassroots development project, since the town's coal industry has been in rapid decline. The class researched forms of economic development including tourism that could be helpful as the town seeks alternative economic opportunities.

* * * *

Notes to the Teacher's Corner

1. A longer article by Melinda Bollar Wagner describing the book project, "Analyzing the ABC's of Appalachia: University Students Write a Children's Book," is published in *Focus: Teaching English Language Arts* (Ohio University, Athens, OH, Winter 1984).

2. "The Flea Market" article is based on "Case Studies: Teaching Economic Anthropology by Immersing Students in the Local Culture," by Mary B. La Lone, the second half of a presentation at the American Anthropological Association November 1993 annual meetings titled "Ethnography as a Teaching Tool: Immersing Students in the Local Culture," by Wagner and La Lone.

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