Reptile rulers were masters of the earth—long before the dawn of man!

ARTIST'S conception of intelligent reptile family (right) that scientists say existed millions of years ago. At left is a model of a "dinosaurs" created by Curator Dale Russell at the National Museum of Canada. This is what dinosaurs may have looked like if they had developed their brains.


Featured in this issue:

Medical Anthropology at Harvard: From Culture to Experience
ARTHUR KLEINMAN Page 2

The Preservation of Nonrenewable Resources
RICHARD RENSHAW-BEAUCHAMP Page 5

Fantastic Archaeology: Fakes and Rogue Professors
STEPHEN WILLIAMS Page 17
Medical Anthropology at Harvard: From Culture to Experience
ARTHUR KLEINMAN

Arthur Kleinman is Professor of Medical Anthropology in the Dept. of Anthropology and in the Dept. of Social Medicine, Harvard Medical School. He is also Prof. of Psychiatry in the Harvard Medical School.

Dr. Kleinman earned his undergraduate degree (and was elected to Phi Beta Kappa, 1962) and M.D. degree (1967) from Stanford Univ. He received the M.A. (1974) in Anthropology from Harvard. He did postgraduate work at Yale, the National Institutes of Health, Harvard, and Massachusetts General Hospital.

Dr. Kleinman has conducted research on cultural influences on illness and health care in Taiwan, the People’s Republic of China and the U.S. He has authored and been contributing editor of a number of books, and published numerous articles in academic journals. Among his most recent publications are: Social Origins of Distress and Disease: Neurasthenia, Depression and Pain in Modern China, Yale Univ. Press, 1986; The Illness Narratives: Suffering, Healing and the Human Condition, Basic Books, New York, 1988; and Rethinking Psychiatry: From Cultural Category to Personal Experience, Free Press, New York, 1988.

The recipient of many awards and honors, Dr. Kleinman received the Wellcome Medal for Medical Anthropology by the Royal Anthropological Institute of Great Britain and Ireland. He is a member of the Institute of Medicine of the National Academy of Sciences.

“We are four generations under one roof,” quietly boasted Li Heng-wen, a spindly, bald octogenarian in tattered blue work clothes, Mao cap in hand, whose ancient, haggard face I can still picture so clearly eight years after that suffocatingly humid August morning when I bent close to his mouth to decipher the guttural local accent to his “standard” Chinese and received both a spray of his spicy breath, redolent of hot Hunanese peppers, and this unexpected Confucian chestnut.

“For more than a hundred years we have lived in Changsha [the capital of Hunan Province in the People’s Republic of China, where our interview took place]. Even under the Qing we were wood workers. Just poor workers, not skilled craftsmen. I was born in that old brick house and I will die in it. Under the Warlords we were burned out once, but we repaired what we could and moved back in even though the timbers in the back door were still black and smoldering. Not even the Nationalists, those scum, when they burned most of Changsha to the ground, all the while blaming it on the Japanese Army, as if anyone with two eyes could believe them, why even the Nationalists could not succeed in destroying our house.”

“During the Cultural Revolution,” old Li chuckled, opening his mouth to show the yellowed remains of three upper and two lower teeth, “during that terrible time, even the Red Guard factions who set fire to half the buildings on our street, even they didn’t succeed in destroying our house.”

“That house has seen a lot of bitter times: hunger and illness.” Old Li and I talked quietly in a small, closet-sized room off of the waiting area in the crowded, noisy Outpatient Clinic of Internal Medicine at the Number Two Affiliated Hospital of The Hunan Medical College, which before 1949 had been the renowned Yale-in-China Medical School. I had received Old Li’s permission to interview him as a subject in a study of neurasthenic patients, a study for which Old Li’s chronic sleeplessness, dizziness, and depression qualified him for more than two decades.

“In the time of the Nationalists,” he continued, “one epidemic followed another. Two of my children died of fever; we never learned what kind. My mother died of tuberculosis during the Anti-Japanese War. Our family fled like our neighbors and just about everybody before Changsha, or what was left of it after the big fire, was captured. We walked all the way to Guizhou, almost a thousand miles! There was so little to eat, we stole turnips and gourds from the fields, and sold all we had brought with us for sweet potatoes and corn meal mush. You couldn’t get rice without lots of money or even precious antiques. We had no money at all. And after we had traded away all we had we survived on bark and weeds. My youngest brother died of dysentery. Then when we finally got to the mountains, two of my nieces got separated somehow from us. My oldest aunt was frantic, she accused her husband, my father’s oldest brother, of selling them. She went out of her mind, and never was the same again. I tell you there were dead bodies all over the road, whole families even. There were stories of orphans being eaten by refugees or by the local minorities, who were wild people living in caves. Things were terrible. The Japanese planes strafed the road, we had to walk on village paths that were ancient wheelbarrow ruts.”

“Then, when we finally got over the mountains, my mother died.” Old Li shook his bald head so hard that each of the muscles in his wasted neck stood out. “She had been coughing and spitting up blood for a long time. She was so pale she looked whiter than you do. She gave my children and me most of her food. We had no medicine to give her. There were no doctors. Even the old Chinese medicine physicians had run off. Anyway she got so weak we had to carry her on an old, broken door we found near a bombed out...
house. She died before we could reach the city.""

Old Li paused, shook his head hard again and drew a circle with his cane in the dust on the floor around his black cloth slippers.

"We eventually found some distant relations, and got sweet potatoes and cabbage to eat. Even that was more than we had in 1961 during the time of starvation after the Great Leap. That was when we had nothing at all, really nothing to eat. Some people ate stones to keep down the hunger. At that time every member of our family had swelling in the legs due to starvation. You could stick a finger up to the first joint into my wife's skin at the ankle and the dent it made would stay like that for 10, maybe 20 minutes. She was so sick that she damaged her liver for good. That's what killed her during the Cultural Revolution. I'm sure my grandson was fed up and my son told me he wouldn't try "old superstitions." Do you understand the saying? Well, whatever it is, I don't care if it's superstition or not, if it works that's all that matters. Nothing else has helped. As he is now, what future can my grandson have? Who can help a cripple find work or marry? What can he do? We are workers, not intellectuals. Not one of us has completed junior middle school."

Old Li frowned and looked away from me. "The hospital gave us a special chair for him, paid for by my grandson's work-unit. It has wheels and he can wheel it around the street. That's no answer. The other children laugh at him. He can't really take part in things. He will always be different than others. He will never be able to work wood with his hands. He will never find a wife or have children. Because of the one child policy, with him our family ends. The only son of an only son. What is the good of 'four generations under one roof'. That is our misfortune. That is why my weakness and dizziness and nerves are getting worse. The last bitterness I have had to eat." Old Li wept.

Medical anthropology at Harvard is a rich stew of academic questions, some that can be traced right back to preoccupations that worried W.H.R. Rivers at Cambridge University early in this century, others that have emerged much more recently in the borderland between culture, sickness and healing. The members of the Harvard medical anthropology research group study many different things: for example, I have conducted field research on the social organization of Taiwan's health care system, from its shamans and traditional Chinese medicine practitioners to its neurosurgeons. Together with my wife and principal collaborator, Joan Kleinman, I have also studied neurasthenia and depression among Hunanese like Old Li in order to understand the cultural patterning of their illness behavior, help seeking decisions, and responses to care, and the social origins of these medicalized forms of human misery. I have compared my Chinese findings to the social origins of chronic pain syndrome in Seattle, the social transformation of medical practice in Boston, and the social consequences of disabilities, such as that experienced by patients with paralysis and schizophrenia, that stigmatize families and of suffering, such as that expressed by AIDS and leprosy patients, that is a moral challenge to whole communities (see Kleinman 1980, 1988a, 1988b; and Osterweis, Kleinman and Mechanic, eds. 1987). My research has ranged from the symbolic meanings of bodily idioms of distress to the practical applications of ethnography in health care and in public health planning.

My colleague in medical anthropology for many years, Dr. Byron Good, together with his wife and collaborator, Dr. Mary Jo Delvecchio Good, have mapped the health care system in a Turkish town in Iran, described the practice of primary care in rural communities in Northern California, and assessed the sources and forms of depression among Iranian refugees. The Goods have also analyzed the moral and epistemological training of students at the Harvard Medical School, decoded what physicians mean by competence, and compared the responses to epilepsy in different societies. Our postdoctoral fellows (present and former) and graduate students have engaged in a great span of studies, including the ritual process in charismatic Catholic healing, the cultural shaping of nervios among Puerto Ricans, the family’s response to schizophrenic symptoms among Mexican Americans, the social psychological sources of chronic fatigue syndrome, the consequences for families and communities of chronic mental illness in India and China, the cultural construction of the American response to cancer, the ethnography of biomedical research, tuberculosis and AIDS in Haiti, shamanism in Taiwan, the meaning of body shapes and diet in Fiji, the political economy of the pharmaceutical industry in Korea, yogis in the Himalayas, Cambodian refugees, and much else besides ranging from esoteric theory to the most practical of international health issues. The spectrum would be even wider were I to list the

Continued on next page
topics of undergraduate senior honors theses. Our teaching contributions cover each of these levels, from an introductory Core Course on "Culture, Illness and Care" to more advanced seminars on "The Varieties of Human Suffering," "Asian Medical Systems," "Culture and Mental Illness," and "Theory and Methods in Medical Anthropology."

For all its diversity of subject matter and methods, the anthropology of medicine at Harvard echoes with haunting illness narratives like the deeply resonant tale of personal anguish and family suffering Li Hengwen told to me. These stories of sickness are of course grist for the mill of standard social analysis of kinship, religious, and political systems: actually, all can be analyzed in Li Hengwen's account (see Kleinman 1986 where stories like Old Li are the basis for a cultural analysis of the social sources of misery in modern China). But Old Li's story and those audited and collected by other members of the medical anthropology program are something else besides. The choke and sting of our informants' pain, which etches itself so deeply into the consciousness (and conscience) of the researcher, and the sometimes inspiring tales of their aspirations and of their victories over existential crises (however tentative and illusory) make unavoidable the recognition that ethnography is as much about what is at stake for individuals and families in the ordinary dailiness of shared human conditions as it is about what is peculiar on the level of grand custom and the implacable impersonality of great historical movements. Stories of suffering also are a chart for new concepts and methods more adequate to study the dialectical processes that connect institutions and systems of meaning to emotion and physiology.

Accounts such as that of Li Hengwen suggest that the moral structure of lived experience deserves to become a central subject matter of ethnographic description and ethnological comparison, alongside the more familiar categories. (And, of course, these stories may call for practical action that is of use to persons and society: but that is a tale for me to tell at another occasion.)

In this sense, medical anthropology (which in the discipline as a whole sometimes seems to be inappropriately viewed as a distant kind of applied "poor relation"), at least the version we pursue at Harvard that is, is more validly to be thought of as a regular member of the anthropological high table, one who brings some of the more interesting intellectual morsels of our times together with a hearty appetite for more mundane joint and Yorkshire pudding applications of the movable anthropological feast.


---

GRAND TOUR OF MESOAMERICA
February 19 — March 10, 1989

We will visit more than a dozen archaeological sites on this remarkably comprehensive tour, including all four of the major cities of ancient Mesoamerica: Copan, Tikal, Teotihuacan, and Chichen Itza. Dr. Rosemary Joyce, a Precolombian archaeologist and Assistant Director of the Peabody Museum will be the guest lecturer.
The Preservation of Nonrenewable Resources
RICHARD RENSHAW-BEAUCHAMP

Richard Renshaw-Beauchamp is the Head Conservator of the Peabody Museum. He was born in Dun-tisbourne Rouse, England, and trained in Fine Arts conservation and restoration in London and at the Instituto Central de Conservacion y Restauracion in Madrid.

Mr. Renshaw-Beauchamp is a specialist in anthropological and natural history conservation. Before coming to the Peabody he was Chief Conservator at the British Columbia Provincial Museum in Victoria. An expert in treating ethnographic, archaeological, and historic artifacts, he has written a number of articles and monographs on a wide variety of conservation topics, including: treatment for prints, leather, basketry, wood, petroglyphs and pictographs; adhesives; and pest control and fumigation techniques.


“Buy land young man! — they aren’t making it any more.” At an ever increasing rate cultures all over the world are changing, becoming increasingly homogeneous, and in many instances disappearing.

With the universal use of the transistor radio — found as frequently in the paddy-field as on the New England beach; the spread of television, vending an international array of ephemera geared to the acceptance of as broad a spectrum of tastes as possible in the interests of mass production; the concentration of newspapers, into fewer and fewer hands, many of them not native to the country in which they are published, emerging nations rush to discard the impedimenta of the past to assume the trappings of civilization.

Even where there are groups of people who are happy with their lot and wish to continue their traditional way of life there are pressures on and by their leaders to change “for the better.”

Thus it is that the seemingly endless source of ethnographic artifacts is drying up. It is very fashionable to consider religious, ceremonial, even everyday household objects from exotic cultures as Art Objects. Very soon this concept will not be so far-fetched. Liberian masks, Guatemalan molas, and Javanese shadow puppets will become as rare and sought after as examples of the Dutch School of Landscape Artists, the English Pre-Raphaelites or the Hudson River School. Thus it is that an ever increasing demand for the only concrete and objective evidence of our past and the past of all peoples and cultures will have to be met from a finite resource — a nonrenewable resource. It puzzles me that so many people do not realize or have not thought to work out in their own minds that “this is it. What you see is what you have got and all you are going to get” and behave accordingly. There will always be trading back and forth and the sale of private collections, but as we approach homogeneous culture and move into the 21st century, the sources of anthropological material will dry up. Already there is worldwide awareness of how fast some countries are losing the objects which illuminate their past and should guide their future, and I feel that it will not be long before all unlicensed trade in this kind of material will be prohibited both by exporting and importing countries.

All of the foregoing applies equally to archaeological material.

Scholarship is international and many poorer countries welcome Social and Physical Anthropologists, however the days of large wooden crates full of artifacts being sent to some seat of learning thousands of miles away, never to be returned to the country of origin, are over. I hope that this does not presage an era in which, for example, all Ivory Coast archaeology would be done by the inhabitants of the Ivory Coast or that of Pakistan by Pakistanis, etc., etc. This would I feel, produce too subjective an interpretation of the found evidence. It is in this last sentence that the imperative need for conservation is buried. The only concrete, wholly objective evidence that the world has of its past is held in its museums or is still buried. No matter how much we protest that we are objective, unswayed by our upbringing at home, at school, un­ influenced by our friends, our teachers, our political gurus, un­ affected by our reactions to strange and not well-understood customs and mores, we are by the very nature of our intellectual processes subjective. Thus it is that until that evidence of our past has been analy­ zed and pronounced upon not only by different generations using ever more sophisticated equipment but by researchers of differing cultures, no true picture of long dead and buried civilizations can be painted in words or pictures.

This is the burden that the museum Director bears and of which only the execution can be delegated to the Conservator. So what is a Conservator? The conservator used to be called the Restorer and had the rather different function of “fixing” things and changing them and making them look as “nice” as possible for display purposes. This image and the reality has been changing however since the beginning of the 19th century. Most countries in Europe will claim, I am sure, the honor of being the first to have undertaken scientific research in the field of preservation.

Continued on next page

Symbols • December • 1988 • 5
of historic and artistic works. I like to think that Michael Faraday with his study of deteriorating leather bindings in London in 1843 was the first to produce properly documented research, but that is my chauvinism showing.

It was in the field of fine arts that the change from an improver of outward appearances to a preserver or conservator of structural integrity first took place. That was only natural. The owners of large collections of art objects — worth a great deal of money — whether they were governments or private individuals were determined to protect their investments.

The collector of curiosities on the other hand was just demonstrating the fascination of travel to exotic places and the attraction of the unusual or unknown. With very few exceptions, and those were notable exceptions, these collectors of exotic artifacts and bankrollers of archaeological expeditions were attracted by the romance of the noble savage, and the alluring image of a mysterious past.

It was not until comparatively recently that a few scientists working in the field of fine arts became interested in what we now consider ethnographic or archaeological objects, but it was fine arts, the cult of the aesthetic, that attracted the money and the attention of that handful of specialists and saw the formation of conservation and research facilities in a few forward-looking institutions.

An excellent article in the *Journal of the American Institute for Conservation*, Vol. 26, No. 2. 1987, by Nicolo L. Caldararo, Dept. of Anthropology, San Francisco State University, gives a full history of anthropological conservation as we know it, presented through its publications. Before I read it I had not realized quite what a part Germany played in the 19th and early 20th century, a good lesson in the non-objectivity of historical perspective. It is a very interesting article and I hope that all who read it are as disturbed as I was by two quotations: "Archaeological research between 1800 and 1875 can perhaps be credited with establishing the philosophy of preservation" (Hulmer, E., *The Role of Conservation on Connoisseurship*.

An excellent article in the *Journal of the American Institute for Conservation*, Vol. 26, No. 2. 1987, by Nicolo L. Caldararo, Dept. of Anthropology, San Francisco State University, gives a full history of anthropological conservation as we know it, presented through its publications. Before I read it I had not realized quite what a part Germany played in the 19th and early 20th century, a good lesson in the non-objectivity of historical perspective. It is a very interesting article and I hope that all who read it are as disturbed as I was by two quotations: "Archaeological research between 1800 and 1875 can perhaps be credited with establishing the philosophy of preservation" (Hulmer, E., *The Role of Conservation on Connoisseurship*.

**Collections. A Pilot Study.** Washington, D.C. A.A.A. 1979) "shows care is a secondary consideration in archaeological collections." No comment is made in the "Conclusions." I find this disturbing because somehow between the end of the 19th and the beginning of the 20th century the archaeologists — the producers/educators — and the museums — preservers/exhibitors — lost contact with each other.

The first national conservation laboratory was certainly in Berlin — pushed as it was by the interest of the Kaiser in things Egyptian — in 1888, and it was not until 1908 in Stockholm under the leadership of Agnes Branting and in London in 1909 that other countries followed suit. In fact despite the scientific interest of anthropologists in France in conservation it was not until 1925 that Paris had its first laboratory. In the U.S.A. even though there was heavy involvement on the part of universities, museums associated with universities, and privately endowed museums in the anthropological field, conservation and its scientific research once again received its impetus from interest in the fine arts.

The Fogg Art Museum at Harvard in 1928, the Boston Museum of Fine Arts in 1929, with Baltimore and Philadelphia in the same years were the first institutions to set up conservation laboratories with a scientist or scientists on staff. As an aside it is quite remarkable to note that the holdings of the federal government in Washington, D.C., both fine arts and natural history, did not have their first conservation analytical laboratory until 1963. In the 1920s and 30s the concept of any form of art or indeed nature as a nonrenewable resource was a non-issue.

Art and archaeology were the purview of the few. In turn the few supported such great institutions as the Fogg and the Boston Museum of Fine Arts, among many others, and could be counted on to fund the efforts to conserve the gifts so generously donated. Ethnographic and archaeological collection was and still is the poor relation in comparison. A Tsimanian blanket, one of only 3 extant collected in the first decade of the nineteenth century, still does not have either the cachet or the monetary value of even a Jackson Pollock, one of hundreds extant in galleries and private collections. Therefore neither the curator who researches the blanket nor the conservator who preserves it has, even within some sections of the museum profession, the same stature and reward as the curator or conservator of paintings. This is rather like subscribing to the belief that the hybridizer of roses is of more importance than the plant geneticist who specializes in wheat. I am sure that Oscar Wilde would argue that point were he alive, but then he always did like to provoke a good discussion. Beauty for beauty's sake is important in our lives, but we must learn and understand our past before we can fully understand our present. And when the objects which help explain our past are also beautiful then we should accord them the place that they deserve.

Attitudes are changing however. Both the public and the world of archaeologists are coming to accept the importance of the artifact in itself as well as in its social and cultural context. It is still quite difficult for many archaeologists to admit that an archaeological artifact has a monetary value, but to persist in that attitude is not very sensible. Such artifacts are sold every day and many for a great deal of money. They are sought after as are many ethnographic artifacts for their beauty as well as their rarity. Increasingly they are being bought, like paintings, for investment purposes. Perhaps this will be the stimulus needed to advance this field of conservation. In some institutions already, conservators, curators and scientists get together to preserve and research material culture, and so it is that another dimension has been added to the task of conservation, one of ensuring that the preservation of an object does not interfere, not only with the investigative technology of today, but of tomorrow. This was one of the strong reasons behind the acceptance of the ethic of minimal intervention and preventative conservation. Not only may the archaeological or ethnographic artifact retain evidence of its use for tens of thousands of years but the soil in contact with it in its archaeological context may contain information pertinent to that use. The reddish dusty patina of a Benin bronze is the evidence of its life in

*Continued on page 8*
"Swift Blanket," Tsimshian, Northwest Coast, mid-18th c. P.M.# 09-8-10/6401.


Benin bronze head. P.M.# 16-43-50/B1483.
the blowing red dirt of Benin, the whitish encrustations in a basket, under a layer of museum dust may confirm or refute its conjectured use, the clay adhering to an excavated point may have sequestered enough blood to identify the point’s last victim.

Conservation is not just the job of the conservator and the conservation scientist, as many museum studies courses bear witness to. It is something to which every person working in a museum can contribute. The receptionist plays a part, just by asking people not to eat in the museum, and by not letting children rush about and play tag around the cases. This is indeed preventative conservation. Many paintings have been splattered and damaged by minute particles of bursting bubble-gum. The cleaning people and guards too have their role. If they have attended talks on the subject they can be the first people aware of an outbreak or the beginnings of an infestation. They need to know too how important cleanliness is in the protection of the collections. Because they see or should see everything in all the displays every day they could, they can be the people who first notice that a shelf is sagging, a hat has tilted on its mount, that there are dead adult carpet-beetles on a case top. They don’t need specific training, just awareness training. It is far better that conservation get alerted when nothing is wrong than have someone say, after the event, “Oh yes! I noticed that days ago.”

Curation is an important part of conservation. A collection can and should be curated on display as well as in storage. Hair-line cracks in artifacts, the shedding of cedar bark, little specks of grass under wooden objects, by noticing these things curators can point out to conservators the first signs of change in condition. Few museums can afford a large enough conservation department for there to be complete inspection by a conservator of every case every day. Even at the Royal British Columbia Museum where we had seven people in the department all the cases were inspected only once every two weeks.

I like to think that everything that goes on in “my” museum is of direct concern to me, whether it is picking up a discarded candy-bar wrapper or discussing an object label and I would hope that everyone else working in the museum feels the same way about things, and I think they do.

So what does a conservator do? The Canadian Code of Ethics (“Code of Ethics and Guidance for Practice,” International Institute for Conservation, Canadian Group, Canadian Association of Professional Conservators. I have chosen the Canadian Code of Ethics as it is more oriented to the objects conservator than the American.) sets out the conservator’s responsibilities vis-a-vis the object and the profession and a guide to the practice of conservation. The guide outlines our obligations to the object and the owner — be it public or private. It tells us that preventative conservation is the primary objective but if we are too late then intervention to ensure the integrity of the structure of the object is allowed. It also gives us the rules/guidelines which govern examination, treatment and subsequent care. I find it interesting that it is in the glossary that it is spelled out best just what a conservator is. Four headings tell it all:

Storage, after cataloguing, in boxes lined with acid-free paper. Objects await storage in individual, lidded polycarbonate boxes.
Preservation: All actions taken in regard to deterioration of or protect damage to, cultural property i.e. controlling the environment, use and as a last resort treatment.

Preventative conservation: All actions taken to retard deterioration and prevent damage to cultural property through the provision of optimal conditions of storage, use and handling.

Reconstruction: All actions taken to recreate, in whole or in part, a cultural property, based upon historical, literary, graphic, pictorial, archaeological and scientific evidence. Reconstruction is aimed at promoting an understanding of a cultural property and is based on little or no original material but clear evidence of a former state.

Restoration: All actions taken to modify the existing materials and structure of a cultural property to represent a known earlier state. The aim of restoration is to preserve and reveal the aesthetic and historical value of a cultural property. Restoration is based on respect for the remaining original material and clear evidence of the earlier state.

This is perhaps the time and the place to make known my views on the present-day estrangement between conservator and curator. This estrangement — this lack of empathy — does exist. It goes both ways. Too many conservators think that the majority of curators know little about caring for their collections (curating), and that their interest lies in research and dissemination of that research, be it in the classroom or the exhibit. Many curators think that most conservators are high-handed, over-protective of the collections, and too uncompromising when it comes to permanent or travelling exhibits. (As an aside may I say that with a lot of imagination, inventiveness, and some money nearly anything is possible, or put it another way, some imagination and inventiveness and a lot of money.)

These attitudes on the part of curators and conservators were not so prevalent in the 1930s, 40s, and 50s. The early triennial conferences of the International Council of Museums (Committee for Conservation) would consist of 40% curators and 60% conservators. Now we are lucky if we have two or three curators in a conference of two or three hundred or four or five in six hundred, and this is the fault of the conservators. We have allowed

Continued on next page
the committees whom we elect, to turn our meetings into monologues where we lecture each other in increasingly obscure and technical language instead of promoting dialogue between the disciplines of the small world in which we live and work — the museum world. The International Institute for Conservation and, until this year the American Institute for Conservation, have been following this same lazy and pleasant path. After all it is so nice to argue about only how many angels could dance on the head of a pin, not to have to try and prove, first, that there were angels, second that they could and indeed would dance, and lastly dance on the head of that particular pin. I would dearly love to open discussion on both a national and international level on how anthropologists view conservation, conservators and their own work and responsibilities and vice-versa. Most discussion, both printed and verbal, always seems to be concerned with the point-of-view and work and responsibility of the writer or lecturer. There seems to be a reluctance to take an holistic approach, but we must take if we are to do the best by our collections, our nonrenewable resources.

New Publications


John Otis Brew 1906-1988


Prof. Brew was born in Malden, Massachusetts in 1906. He graduated from Dartmouth College in 1929 and received the Ph.D. from Harvard in 1941. From 1941 to 1945 he was Ass't. Curator of Southwestern American Archaeology and became Curator of North American Archaeology in 1945. He was appointed Director of the Peabody Museum in 1946 and Peabody Professor of American Archaeology and Ethnology in 1949. He served as Director until 1967 and became Professor Emeritus in 1972.

Prof. Brew excavated a number of sites in the southwestern United States and published many articles on his work in New Mexico, Arizona, and Utah. The Archaeology of Alkali Ridge, Southeastern Utah, published in 1946, remains a classic in the field.

For much of his life Prof. Brew was a leader in the effort to preserve historical sites. He was appointed Chairman of the Monuments Commission of UNESCO and recommendations written by him were adopted by the General Conference of that organization for the preservation of cultural property endangered by public or private works. He was influential in the rescue of archaeological and historic sites in Egypt and the Sudan from the rising floodwaters caused by the Aswan High Dam. He was a member of the Consulting Committee of the National Park Service and contributed to the designation of over 800 sites as national historic landmarks. For his work on behalf of the National Park Service he received the Conservation Service Award from the U.S. Dept. of the Interior.

Prof. Brew was a Fellow of the American Academy of Arts and Sciences, a Trustee of the Mass. Archaeological Society, and former President of the Society of American Archaeology.

The recipient of many honors throughout his life, he was awarded a Doctor of Letters in International Relations from Liberia Univ. in Monrovia in 1969.
Scholars, symposia, and seminars

Department of Anthropology

Dr. Peter Frumhoff, Lecturer on Biological Anthropology gave a paper on "The social consequences of polyandry" at the XX International Ethological Congress in Madison, Wisconsin. "The socio-genetic architecture of insect colonies" was the title of a lecture given in the Dept. of Biology at Boston Univ. Dr. Frumhoff organized a meeting at Harvard of Soviet and American ecologists to discuss cooperative efforts in international conservation. Recent publications include "A genetic component to division of labor in honey bees," with J. Baker, *Nature* 333, 1988; and "Problems in kin recognition," with B. Waldman and P. Sherman in *Trends in Ecology and Evolution*, 3, 1988. Dr. Frumhoff serves as faculty advisor for students in Biological Anthropology.

Asst'. Prof. Dorrine K. Kondo presented a paper entitled "Uchi no Kaisha: Family, Firm and the Policies of Meaning" at a panel discussion on Uchi/Soto: Shifting Linguistic and Social Boundaries at the annual meetings of the Assoc. for Asian Studies. She has completed a manuscript on *Crafting Selves: Work, Identity and the Policies of Meaning in a Japanese Factory*. Prof. Kondo has returned from taking part in a year-long program on gender at the Advanced Institute at Princeton. Her sabbatical leave was supported by a grant from the Rockefeller Foundation. She is continuing her research on work identities in Japan and post-structuralist theories of feminist theory.


Assoc. Prof. Charles Lindholm wrote an article on "Lovers and leaders: a comparison of social and psychological models of romance and charisma" which was published in *Social Science Information*, 27, 1988. "The social structure of emotional constraint: the court of Louis XIV and the Pukhtun of Northern Pakistan" was published in *Ethos*, 16, 1988. A manuscript entitled *Charisma* was completed during Prof. Lindholm's sabbatical year and will be published by Basil Blackwell (1988).

Dr. Aracy Lopes da Silva, a Visiting Scholar in Social Anthropology from January 1988 to June 1989, is on leave from the faculty at the *Universidade de Sao Paulo*, Brazil. She is a member and former president of the Sao Paulo Pro-Indians Commission, a non-governmental organization which promotes research and political action in support of Indian rights. She has done fieldwork among Central Brazilian Indians (Shavante and Sherente) and among the Pataxo Hahahai Indians of Bahia in Northeastern Brazil. While at Harvard she is working on a book on Shavante and Sherente myths from a comparative perspective. The myths are being examined in relation to social organization and as a product and means by which the Indian peoples reflect on their historical and social experiences. The texts were collected over the past thirty years by Dr. Lopes da Silva and Prof. David Maybury-Lewis. Dr. Lopes da Silva has published a number of articles and books on Indian rights and governmental policies affecting Indian citizenship, identity, land rights, mining activities in Indian territory, and education.

Prof. David Maybury-Lewis presented a paper entitled "Becoming Indian in Lowland South America" at a conference on Indian Peoples and the State at the Univ. of Texas, Austin in April. "Images of Indians in Brazil and the Southern Cone" was the title of a paper delivered at a conference sponsored by the State Univ. of New York, Albany, and the Columbus Quincentenary Committees of Spain and Mexico in October. Prof. Maybury-Lewis was Scholar in Residence, working on the Indian question in Latin America, at the Rockefeller Foundation's Study and Conference Center at Bellagio, Italy in August and September. He gave the keynote address on "Some problems in North American Anthropology" at a meeting at the Univ. of Rio de Janeiro to commemorate the anniversary of the post-graduate program in Social Anthropology which he founded there twenty years ago. Prof. Maybury-Lewis delivered the Landsdowne Lectures at the Univ. of Victoria, B.C. in March, 1988. He and Pia Maybury-Lewis were recipients of the Distinguished Service Award of the American Anthropological Assoc. at the annual meetings in 1988. Recent publications of Prof. Maybury-Lewis include: "Claude Levi-Strauss and the search for structure," *The Wilson Quarterly* xii:1, 1988; *The Savage and the Innocent*, new edition, The Beacon Press, Boston, 1988; *The Attraction of Opposites: Thought and Society in the Dualistic Mode*, contributing editor with Uri Almagor, Univ. of Michigan Press.

Dr. Richard Meadow, Head of the Zoarchaeology Laboratory and Lecturer on Anthropology, spent January, 1988, in Pakistan studying faunal materials from the French excavations at Nausharo and from the American (Berkeley) excavations at Harappa, both sites of the Indus Valley Civilization (2500-2000 BC). In August, he traveled to Europe where he worked in Paris editing a volume dealing with the French excavations at the Neolithic-Chalcolithic site of Mehrgarh (Pakistan) and in Tubingen on the second of three planned volumes on Equids in the Ancient World. Publication of both is expected in 1989. Dr. Meadow is on the Executive Committee of the International Council of Archaeozoology and attended an administrative meeting of the Council in Budapest in September. In November he attended the opening of a major exhibition of archaeological materials from Pakistan at the Musee Guimet in Paris. In the winter and spring of 1989, he will spend four months in the field in India, Pakistan, Thailand, and possibly Turkmenistan (SSR) analyzing faunal collections from Neolithic and Bronze Age sites as part of a long term interest in documenting the course of changing social and economic circumstances in the pre- and proto-historic periods.

Prof. Sally Falk Moore attended a conference on Visual Anthropology held in Jodhpur, India (Dec. 1987-Jan. 1988). She presented a paper on "The production of cultural pluralism as a process," "Giving, loaning and selling: some property transactions between non-agnates in a ‘kin-based’ society" was the title of a paper delivered at the Conference on Law and History in Colonial Africa at Stanford in April. At the Law and Society Assoc. meetings held in Vail, Colorado in June, Prof. Moore spoke on "Silences in research and theory: the role of the state in sociological studies." She also participated in an Author meets Critics session on her recent book, Social Facts and Fabrications: "Customary" Law on Mount Kilimanjaro, 1880-1980. A meeting of the Oversight Panel to Review Law and Social Science Programs, of which Prof. Moore is a member, met in Washington, D.C. in Sept. She attended the African Studies Assoc. meetings in Chicago in October and delivered a paper on "Theories of force and the force of theory" at the American Anthropological Assoc. meetings in Phoenix in November.

Assoc. Prof. Izumi Shimada gave a paper on "Organizational significance of marked bricks and associated construction features on the North Peruvian Coast" at the 46th International Congress of Americanists held in Amsterdam in July. He then spent two weeks studying and photographing Peruvian archaeological collections at ethnological museums in Berlin and Hamburg with a grant from the William F. Grant Fund. From late August to early September, he assisted the Catholic Univ. of Peru Archaeological Project in conducting a survey of ancient metallurgical sites in the upper Piura region of the Far North Coast of Peru. The remainder of the summer was spent finishing Pampa Grande: Mochica Ceremonial City, a book which will be published by Thames and Hudson. In October, Prof. Shimada spent two weeks in Peru as the commentator for a special television program on the ancient Mochica culture produced by the Tokyo Broadcasting System. In the summer of 1989 he is planning to initiate a long-term study of the largest and oldest (ca. 3000 years ago) known ceramic firing center in South America. Recent publications by Prof. Shimada include: "Some thoughts on Sican marked adobes and labor organization," with R. Cavallaro, American Antiquity 53, 1988; and "Arsenic copper smelting at Batan Grande, Peru," with J. Merkel, Newsletter of the Institute for Archae-Metallurgical Studies, No. 12, 1988. Prof. Shimada is currently editing Ancient Art of the Andean World and Sican Metallurgy: Toward a Holistic Understanding to be published by Iwanami Publishing, Inc., Tokyo, and Cambridge Univ. Press, respectively.

Prof. Niko/aas van der Merwe attended a conference at Dumbarton Oaks on Teotihuacan in October. "The Southeast Classic Maya Zone: A Summary" is the title of an article in The Southeast Classic Maya Zone of which he is contributing editor (with E.H. Boone), Dumbarton Oaks, Washington, D.C. 1988. He received an award for his contributions to Florida archaeology from the Florida Anthropological Society at their 40th anniversary meeting in May. Prof. Willey is the author of Portraits in American Archaeology, Remembrances of Some Distinguished Americanists, a collection of sixteen memoirs on former colleagues, Univ. of New Mexico Press (in press). Ceramics and Artifacts of Copan, Honduras, authored with R.R. Leventhal, A.A. Demarest, and W.L. Fash will be published by the Peabody Museum, Harvard.
**Visiting Lecturers**

Thoughout the year a number of scholars from the United States and abroad gave lectures to students and faculty of the Anthropology Dept. and at meetings of the Peabody Museum Association.

**Prof. Richard Shweder**, Dept. of Anthropology, Univ. of Chicago spoke on “Gender and the construction of others.” The title of a lecture by **Prof. Jean Paul Dumont**, Institut. for Advanced Study, Princeton, was “The Tasaday, which and whose? Reflections on the construction of otherness.”

**Prof. Richard Adams**, Dept. of Anthropology, Univ. of Texas, Austin, spoke on “Problems of ethnicity in Central America.”

**Dr. Robert Ballard**, Woods Hole Oceanographic Instit. lectured on “The Argo-Jason Project and its potential benefits to archaeology.”

**Prof. Michael Fotiadis**, Boston Univ., lectured on “Neo-lithic mortuary rituals at Franchthi Cave, Greece” was the title a talk by **Tracey Cullen**, As soc. Editor of the Amer. Journal of Archaeology.**

**Prof. Aram Yengoyan**, Univ. of Michigan, lectured on “Language, myth and ontology in aboriginal Australia: the Pitjantjatjara of Central Australia.”

A symposium was held at the Peabody Museum on The Site of Abu Hureyra (9500-5000 BC) and the Advent of Agriculture in the Levant. Participants included **Prof. Andrew M.T. Moore** of Yale Univ. who spoke on “The excavation and significance of research”; **Dr. A. Rowley-Conwy**, Univ. of Cambridge, who lectured about “The animal bones: methods of study and their results”; **Dr. Anthony J. Legge**, Univ. of London, spoke on “Steppe hunting and the origins of animal domestication”; Dr. Gordon C. Hillman, Univ. of London, lectured on “The plant food economy: dietary diversity, seasonality, and the advent of agriculture”; and Dr. Theuya I. Molleson from the British Museum, spoke about “The people as reflected by their skeletal remains.”

**Dr. Ahmar M. Muktatarov**, Acad. of Sciences, Tadjikistan, SSR, gave a lecture on “Tadjikistan in the system of ancient cultures of Central Asia.”

**Prof. Beatriz Manz**, Wellesley College, gave a lecture entitled “The ethnic diversity of Ixcan, Guatemala.”

**Prof. John Parkington**, Univ. of Capetown, gave a talk on “High resolution archaeology: single episode occupation surfaces in the Late Stone Age of the West Cape Coast, South Africa.”

**Prof. Elinor Ochs**, Dept. of Linguistics, Univ. of Southern California, gave a lecture on “Invisible mothers and other domains touched by language.”


**Prof. Norman Hammond**, Dept. of Archaeology, Boston Univ. gave a lecture entitled “New light on the ancient Maya.”

**Prof. Michael Meeker**, Dept. of Anthropology, Univ. of California, San Diego, lectured on “Contested culture in the Republic of Turkey.”

“Traditional symbolism in Belaron mortuary ritual: a diachronic study,” was the topic of a lecture by **Prof. Richard Parmentier**, Dept. of Sociology and Anthropology, Smith College. **Dr. Ivan Chase**, Dept. of Sociology, State Univ. of New York, Stony Brook, gave a lecture on “The emergence of social structure in groups: dominance hierarchies as a model system.”

**Dr. Francoise Audouze**, Laboratoire d’Ethnologie prehistorique, Univ. of Paris, gave a lecture on “The settlement of the Paris Basin during the Magdalenian.”

**Prof. Susan Harding**, Dept. of Anthropology, Univ. of Michigan, gave a lecture on “Evangelical movements in the South.”

**Museum curators and staff**


“The language of Teotihuacan” was the title of a presentation given at the Northeast Mesoamerica Conference held in Buffalo, 1988. Dr. Coggins is currently planning a publication of the Collected Writings of Tatiana Proskouriakoff.


**Scott Edward Fulton**, Ass’t Conservator for the Hall of the North American Indian, attended a conference on Art Conservation Programs held at the State Univ. of New York, Buffalo. He was awarded a National Museum Act grant by the Smithsonian and a Getty Fellowship for study at Queen’s Univ., Kingston, Ontario from which he holds the Master of Art Conservation degree.

**T. Rose Holdcraft**, Assoc. Conservator, took part in the Amer. In-
Artist Honored

Mr. Joseph Johns (Cayoni), Indian Artist in Residence at the Peabody Museum, received an award of $9,500.00, the first Fellowship awarded in the Folk Arts category from the Massachusetts Artists Foundation of the Massachusetts Council on the Arts and Humanities. Mr. Johns is the only living Muskhoegean Creek carver who works in the traditional style of his tribe. He has made over 1,000 carvings; many are in private collections in this country and abroad.

The animals represented in his pieces have Creek symbolism: Otakii, the owl, stands for wisdom and truth; Kipici, the rattlesnake, is the messenger between God and man; and Okati is a fast-running lizard whose speed is imparted to a man who hunts and consumes it.

Mr. Johns uses a variety of woods, though he prefers southern cypress or loblolly pine. He tempers the wood of a completed piece by suspending it over an open-pit fire. It is then rubbed smooth with fine sand and polished using a combination of homemade turpentine, raw beeswax, charred oak bark and leaves, and copperhead moccasin snake oil. When asked where he got the snakes, Mr. Johns said, "By the thousands in my mother's backyard in Georgia."

Born during a rare snowstorm in the Okefenokee Swamp of Georgia, he was named Cayoni, the Creek word for bad weather.

Mr. Johns is pictured with a Green Corn Dance mask. The carving, which represents the renewal of Spring, was traditionally displayed at weddings and at the Green Corn ceremonies held in early June.
amphibian remains from a Middle Woodland oyster midden, Statue of Liberty, New York” was the title of a paper given at the Northeastern Faunal Analysis Conference held at Princeton Univ. in April.

Prof. Robert Maddin, Hon. Curator of Archaeological Science, gave at the Celebration of the 90th Year of Education at the Univ. of Bologna in October. In January 1989 he will give a lecture on “The Cayonu metals” at a conference on Metals Before the End of the Third Millennium B.C. in St. Germain-en-Laye, France. The Beginning of the Use of Metals and Alloys is the title of a book edited by Prof. Maddin, MIT Press, 1988. Prof. Maddin was elected an Honorary Member of the Japan Institute of Metals. His research continues on early Sardinian metallurgy, the Cayonu (Turkey) metals, and metals from Ayios Dimitrios, Cyprus.

Richard Renshaw-Beauchamp, Head Conservator, attended the American Institute for Conservation meetings in New Orleans in May. “The acceptance of change” was the title of the Per Gillbeck Memorial Lecture delivered at the International Institute for Conservation (Canadian Group) Annual Conference held in Victoria, B.C. The address was published in the proceedings in 1987. Mr. Renshaw-Beauchamp continues to be involved with conservation of the Anthony Island World Heritage Site, an ongoing program, since 1977, of the Canadian government. During October, 1988 he was in Europe observing conservation techniques in museums. He is developing a program (which will deal with both policy and philosophy) for conservation of human skeletal remains.

Richard Riccio, Exhibit Designer, made a presentation, with Dr. Ian Brown, Assoc. Curator of North American Collections, to the staff of the University Museum, Univ. of Pennsylvania, on the planning and design of the new Hall of the North American Indian.

Becoming an Archaeologist
OFER BAR-YOSEF

Ofer Bar-Yosef was appointed Professor of Anthropology at Harvard and Curator of Paleolithic Archaeology in the Peabody Museum. He came to Harvard from Hebrew University in Jerusalem where he was Professor of Prehistoric Archaeology in the Institute of Archaeology.

I was born in Jerusalem in 1937, the first of four sons. My parents are native Palestinians, born when it was still a province of the Ottoman Empire. My father’s grandfather had come from Morocco around the mid-nineteenth century and settled in Jerusalem. My mother’s parents came from Riga (then part of Tsarist Russia) with a group that founded Hadera, a coastal town north of Tel-Aviv.

During my childhood I played with, among other toys, fossils and potsherds, collected by my father around the mid-nineteenth century for his first excavation (without a permit) of a Byzantine water system. The publication of the Hebrew translation of Ugaritic tablets on the goddess Anat drew my attention to earlier periods as did the Hebrew version of the famous volume The Archaeology of Palestine written by W.F. Albright. I must admit that only years later when I read the English version as a university student, did I understand why the simple text, translated by a renowned Israeli poet, was at the time so eloquent yet indecipherable.

At the age of seventeen I decided to become a kibbutz member and a year later joined the Israel Defense Force with a group of future kibbutzniks. Among them was the late Yigael Shiloh with whom I was to study and teach in years to come. My general interest in the prehistoric eras turned into a real enthusiasm in 1957 when I joined, as a soldier-volunteer, the excavations at Kebara Cave (17,000-14,000 B.P.) conducted by the late M. Stekelis. Throughout this short season, during the daily coffee break, Stekelis lectured for half an hour on Paleolithic Archaeology. It was, therefore, obvious that in the summer of 1959, upon returning to Jerusalem, I went to see him and asked to participate as a volunteer in the forthcoming season in Nahal Oren Terrace, a Neolithic-Natufian site (19,000-8000 B.P.) in Mt. Carmel. His words were: ‘Fine! Start packing!’ (and since then I sometimes have the feeling that I constantly pack and unpack).

In the fall of 1959, I began my regular studies as an undergraduate in Archaeology and Geography at Hebrew University. During the fol-

Continued on next page
lowing years, I participated in the excavations at Ubeidiya (1960-1966), Nahal Oren (1960), and Kebara (1964-1965) and conducted jointly, with M. Stekelis, the excavations of an Epi-Paleolithic site (19,000-10,000 B.P.) near Ein Gev in the Jordan Valley (1963-1964). During these years I was fortunate to work in the field with E. Tchernov (now a professor of Zoology at Hebrew University) and B. Arensburg (now a professor of Anatomy and Anthropology in Tel Aviv University, Medical School). Thus it was only natural that when we felt that it was time to change the current methods of excavations, we initiated our own project in Hayonim Cave, a Natufian (12,000-11,000 B.P.), Upper Paleolithic (32,000-30,000 B.P.) and Middle Paleolithic (before 40,000 B.P.) cave in the Western Galilee.

Our main goals at the time were to achieve a better paleoenvironmental resolution by retrieving micro-vertebrates through fine mesh wet-sieving and a greater accuracy in uncovering and recording both architectural and burial remains of the Natufian and earlier strata. These excavations continued until 1979 and provided a wealth of data as well as an opportunity to train graduate students in the intricate work of digging a cave site.

While working on my Ph.D. (1966-1970) on the local Epi-Paleolithic assemblages, I spent half a year at the University of Bordeaux with the late F. Bordes, improving my understanding of knapping techniques and typological analysis, and then a few months in London at the Institute of Archaeology. Following the sudden death of M. Stekelis in March 1967, I was invited by the Israel Academy of Sciences and Humanities, together with E. Tchernov, to carry on the Ubeidiya excavations, which we did until 1974. Among our supervisors were Louis and Mary Leakey. At the invitation of M. Leakey, I visited East Africa and had the opportunity to examine the Olduvai assemblages from Bed I through Bed IV and spent three lovely and extremely useful weeks walking up and down the various gullies of Olduvai Gorge and learning its stratigraphy. Later, upon the invitation of the late Glynn Isaac, I traveled to East Turkana with Yoel Rak and Naama Goren, both undergraduates at the time. We ended up walking as our Landrover broke down southwest of Aliya Bay. R. Leakey flew us to Ileret "International Airport" where Glynn met us and we were lucky to spend ten days with him, working, visiting sites, and later moving back to his excavations at Koobi Fora.

The late 1960s and 1970s were active years for Paleolithic archaeology in Israel. A. Jelenik reexcavated Tabun Cave, B. Vandermeerch reexcavated Qafzeh Cave, E. Higgs, T. Legge, and T. Noy excavated Rakefet Cave and Nathal Oren and A. Marks surveyed and excavated Middle and Upper Paleolithic sites in the Negev. Projects by local prehistorians included the excavations of Sefunian Cave by A. Ronen, Ubeidiya and Hayonim by us, and the salvage survey and excavations of sites in Gebel Maghara in the Northern Sinai which I did together with J.L. Phillips (University of Illinois). While some of these projects addressed the questions of cultural stratigraphy and chronology, others were targeted toward the understanding of human adaptations, mainly in the arid zone. The outcome of these efforts was translated into many papers and, most importantly, into a volume of papers published after a conference organized by French colleagues in Lyon in 1980. It was also the first time that my friendship and cooperation with B. Vandermeerch, built through years of joint work in the laboratory and the field (digging in Qafzeh in 1978-1979), were expressed in a short paper suggesting that the Qafzeh hominids were actually 80,000-100,000 years old and not 40,000-50,000, as was the current estimate. This immediately heated up the old debate on the origins of modern humans, first in the circle of Levantine prehistory, and then world-wide. This topic will undoubtedly stay at the forefront of paleoanthropological research for a number of years. There are chronological and geographical gaps in the records and one of my hopes in working from Harvard is to broaden the area and increase the number of sites and sequences which are currently taken into account.

While teaching Levantine prehistory courses, I encountered some of the basic problems in Neolithic archaeology in Israel and the Sinai. Approaching these with the methods of Paleolithic archaeology, I first proposed a systematic chronological subdivision based on arrowhead typology using types, most of which had been previously defined by others. This proposal was later substantiated through the work of A. Gopher. However, I consider the systematic salvage excavations of six Early Neolithic sites in the Southern Sinai as more important. Within the framework of a model on seasonal exploitation of an arid region where topographic variability plays a determining ecological role, I excavated the sites in their entirety. My expectations that the contents of the sites would reflect the season of occupation were partially fulfilled. Shortcomings were due to the degree of preservation in shallow, sandy deposits and the obligation to dig only certain sites.

Working with Neolithic issues, I delved into the old time search for the origins of farming communities,

Ofer Bar-Yosef

Photo: Hillel Berger

Continued on page 24
Exciting archaeological discoveries are being made all the time; often they hit the media in a rather stereotyped manner: Prof. X of Institution Y has just stumbled across a most important new archaeological find in the back of beyond of country Z. Whether it is reported in the New York Times, where there will usually be a helpful map, or in National Geographic magazine with full color photos, one feels quite confident that the information is probably fairly accurate, even if the actual significance is slightly overblown—that’s real archaeology!

But what about this recent find reported in the Weekly World News concerning “Dinosaur People”? Here, Dr. Armin Brandt and Dr. Dietmar Kosel from an unnamed institution have just made this astounding discovery in East Germany. The excavation details are scantly but the visuals will knock your eyes out, and after all, they did use radiocarbon dating to get that 68-million-year-old date, so what’s this all about? See for yourself. It’s an example of what I call “Fantastic Archaeology”—when you try to track down the actual sources for the story, it dissolves into nonsense.

Believe me this virus of pseudo-archaeology is spread far beyond the unsavory pages of the super-market tabloids. For this reason I give a course at Harvard which critically discusses these alternative views of the past and their practitioners; let me take you by some of these “forgotten milestones and blind alleys of the past,” as the late Glynn Daniel referred to them.

Some years ago in his presidential address at the American Association for the Advancement of Science, Kenneth Boulding spoke on the topic of “Science: Our Common Heritage.” In that text, published in Science, he referred to three basic aspects or values in what we call “science”; these were Curiosity, Testing, and Veracity. People acting as scientists must use curiosity to say “What if...?”, and use analytical methods to test the quality of theories. Finally we must be able to trust the records of others when we compare their results with our own.

In archaeology we must be able to assume veracity as a constant. Unlike experimental work in other sciences, the data recovered from an excavation cannot be replicated in another lab by another practitioner to see if the same results can be obtained. Archaeological data are unique—comparable but unique. Thus, if an archaeologist writes of some miraculous discoveries, we must either believe in them or question their veracity.

In Fantastic Archaeology, the writers all too often provide us with hypotheses which cannot be tested. Moreover, these hypotheses often lean on archaeological materials of questionable authenticity. After all, a faked artifact is a lie: it purports to be something it is not, whether it be a heavily-repainted Maya polychrome vessel or a recently-made stone ax or jade figurine. Unfortunately, many archaeologists are not trained to tell the good from the bad.

For example, during the late 19th century Peabody’s eminent Director, Frederic Ward Putnam, was an outspoken champion of Early Man in America; unfortunately, he also became entangled with some rather strange items during his careful search for evidence. The Calaveras skull from California, and the Holly Oak Gorget and the Lenape Stone, both from the Delaware Valley with incised images of mastodons on them, are now known to be fraudulent pieces of data, but that’s another story.

Ofttimes archaeologists are afraid to voice openly the deeply-felt fear that the data were not found quite as they are reported. Whistle-blowing is a thankless task, yet we all know sites that are not accurately reported and well-known objects that would not bear close scrutiny, but that too is another tale.

Archaeologists do have a difficult and exacting task: we are looking for answers to questions about far distant times. Like the purveyors of Fantastic Archaeology, we also attempt to explain the mysteries of the world’s past. But unlike them, we try to do so without resorting to the arguement that there are forces operating out there that we don’t fully understand. If there is a

Continued on next page
sacred stone tablet inscribed with ancient words of wisdom, we are the first to want its message deciphered. But the truth is that written languages record the past of only parts of this planet and do so only for the last few ticks on the clock of human history.

For nearly 200 years, archaeologists have been diligently working to decipher the past. The early trailblazers in this work included scholars such as John Frere (1799), Charles Lyell (1830), Boucher de Perthes (1855), John Lubbock (1869) and Heinrich Schliemann (1875). But even as these pioneering steps were being taken, alternative voices were being raised.

A hundred years ago, Ignatius Donnelly was riding the best-seller list with two books on fantastic topics: *Atlantis* and *Ragnarok*. The former was to revive popular interest in the myth of the sunken city, whilst the latter told of a comet causing desolation on earth which Donnelly describes in terms much like those for a "nuclear winter." In London, Helena Blavatsky, a clairvoyant Theosophist and Atlantis fan was holding court, smoking hashish and mesmerizing young writers like William Butler Yeats. Meanwhile, a Society for the Study of Psychic Phenomena was founded nearby in Cambridge. The Society was to use Blavatsky as its first test case and found for the negative. During the decade of the 1880s the Impressionists in France were hard at work perceiving a new artistic reality. Also in that decade an amazing sextet of eventual world leaders were born: Roosevelt, Mussolini, Truman, Ben-Gurion, Chiang Kai-shek, and Hitler. Strange times indeed; what is the meaning of these messages from the past? Coincidence only? Or were there truly mysterious forces controlling these events?

What's happening now at the end of the decade of the 1980s? We've survived an Harmonic Convergence and a presumably unrelated stock market crash. People are into "channeling"; getting messages from past personae and using quartz crystals — which are selling like hot cakes — as intermediaries. In some of the hard sciences catastrophism is back as an explanatory device, with comets seen as impacting planet earth at perhaps regular intervals and dust clouds arising to envelop the globe and cause extinctions in dinosaurs, etc. What strange times!

Indeed, our very distant ancestors in their cozy little hut at Olduvai Gorge might just as well have said the same thing some two million years ago. Imagine the explanations they had then for the violent convulsions that shook the earth and for the explosive volcanic eruptions that sent up clouds of suffocating dust, not to mention the rain of rocks and mud. Also terrifyingly huge beasts then roamed the African countryside, only to abruptly perish. How could they have understood what was going on? Nothing seems to get very much clearer today even though we see through time with greater and greater precision and decode even more distinct messages from the past.

Despite all the truly amazing achievements of modern archaeology, fantastic views of the past seem
to be assailing us from all sides in
greater numbers than ever before.
I've already mentioned the tabloid
articles, but there is also a flood of
books and magazines all claiming
to reveal the ultimate truth about
such diverse topics as the origins of
humanity, the secrets of yet
another "lost" civilization, or the
sex-lives of long-dead personalities.
What's happened? Are these the
Dark Ages? Have we regressed to
unknowledge about the past after
all those early advances? Did Wil-
lard Libby never win that Nobel
Prize for inventing Carbon 14 dat-
ing? Are the extraterrestrials really
taking over? Does Bigfoot roam our
city streets terrorizing helpless
citizens as the mythical King Kong
once did on the silver screen? And
have our shopping-mall parking
lots become landing places for
UFOs while the Pentagon quietly
wrestles only with Contra Aid and
hostages? Is Alan Bloom really right
about the Closing of Our Minds? Is
that what's happened?
Well, you'll never prove the con-
trary to me. Despite all our best ef-
forts to answer Velikovsky, von
Daniken, and Barry Fell, Fantastic
Archaeology seems to have almost
taken over.
Last December, Time magazine
reviewed "The New Age" starring
Shirley MacLaine on the front cover
offering a handful of quartz crystals
to all who want to get into channel-
ing and space travelers. The article
was quite comprehensive and I can
modestly say that students in my
course on Fantastic Archaeology
have already met most of the
characters before. The article did in-
troduce a new rising star: art-
professor and writer-artist Jose Ar-
guelles, and his recently published
book The Mayan Factor: Path Beyond
Technology.
Of course, the Old Guard ar-
chaeologists are all wrong about the
Maya according to Arguelles, who
has had a lifelong tie to things
Mayan and more recently had
something of a mystic conversion
which allowed him to access the
Maya more directly. His book
presents an original view of the
Maya, aided by some pretty com-
plex illustrations of his own devis-
ing showing things like "Galactic
Channel, Resonant Field Model"
and the "Psycho-Solar Resonance
Pulsation Matrix." Very high tech
models indeed. Arguelles closes
with a lovely view of the "Crystal
Prophecy of Pacal Votan" with
good old Pacal, space helmet and
all, in the center of a giant crystal.
The point of the book is that we
need to re-contact the Maya who
have fled back to the stars from
whence they came. This departure
obviously explains the "Fall" of
Maya civilization. Now August
17/18, 1987 was the time of the
"Harmonic Convergence" — the
time to reassure the Maya in the
Pleiades that we cared. They were
going to be in contact during this
period via a cosmic channel. Who
would believe all that? Well, appar-
ently over 144,000 people took part
in the Convergence; that may give
an answer. At least Discover maga-
zine put the event in its proper
perspective with a "Beam us up,
Jose" tongue-in-cheek spread.
Confusions about the time scale
are paramount topics for involve-
ment by the practitioners of Fantastic Archaeology. One example is Jeffrey Goodman, a devotee of psychic archaeology who discovered a 100,000 year old incised rock near Flagstaff, Arizona. Goodman has written several books using his own data and the dates from mainly West Coast skulls such as those from Sunnyvale and Del Mar, California to “rewrite” New World culture history. To him, the real “Garden of Eden” for Homo sapiens is in southern California, and the routes across the Bering Strait have had the sign posts pointing in the wrong direction. The movement according to Goodman is from the New World to the Old, with American Indians ending up in southern France about 35,000 years ago.

A basic part of this novel hypothesis derives from the unfortunate use of an early C14-dated human skull from Laguna, California provided by George Carter, emeritus professor and another practitioner of Fantastic Archaeology. The sample was used by Jeffrey Bada, a physical chemist and innovator of the aspartic acid racemization dating technique, as a baseline specimen in calibrating his racemization dating. This use of a questionable sample led him to turn out a dozen or more wrong dates on human skeletal remains. These dates, ranging from 27 to 70,000 years, were way out of line with the usual dating of the North American Indian cultures from which the skeletons were derived.

It was these dates, many published in the distinguished journal Science, which were used by Carter and Goodman to espouse their new and radical chronology for North American archaeology in their recent books. Only very recently (1986), as a result of newly-run C14 determinations, Bada has gracefully retracted all his very anomalous racemization dates for these North American specimens. This retraction, which accompanies the publication of the new C14 dates — none of which are greater than 10,000 years — will take years to clear the literature of the “bad dates”; and the purveyors of Fantastic Archaeology will probably never get the word, or accept the revisions.

What then do we have here with Prof. Carter, an accredited scholar whose current output, such as “Earlier Than You Think,” is classic Fantastic Archaeology, with all its faults and foibles? Well, I’ve never been too happy with the term “Crank Scientist” although it is widely used; instead I’ve coined the term “Rogue Professor” for Carter and others like him; that’s “rogue” as in rogue elephant.

Rogue elephants look like other elephants, but they don’t act like other elephants. Rogue professors have all the degrees and academic trappings of other professors, they even write like other professors. Their papers have learned references and bibliographies and thus look the part, but they aren’t really what they seem. These scholars have lost the absolutely essential ability to make qualitative assessments of data they are studying. They have forgotten about testing and veracity as well. Often their hypotheses are not falsifiable.

Therefore, rogue professors do not have the critical standards of a professor and thus have the opportunity to rogue or defraud the public, like a rogue elephant loose in the library of knowledge. These sad characters and their behavior are not new or rare. To strengthen my case I’ll use some Harvard examples: in the late 19th century there
was Prof. Eben Horsford, a very distinguished chemist who held one of Harvard’s oldest science chairs as Rumford Professor. The inventor of baking powder, and a Brattle Street friend of James Russell Lowell and Longfellow, Horsford became, in his later years, enthralled with the idea of a Norse presence in New England and the Charles River Basin. He found what he considered to be conclusive evidence of Viking constructions on the Charles and at his behest, bronze plaques were set up near them, stating the discoveries as fact. No such evidence really exists.

In the late twenties and thirties, Prof. Leo Wiener, a Harvard specialist in Slavic languages, became convinced that there was linguistic, historical, and archaeological evidence for numerous direct connections between African cultures and that of the Maya and even with the prehistoric Indian cultures of the Southeastern U.S. His lengthy books on this subject “look” like scholarly productions, but are terribly flawed by self-inflicted weaknesses in his comparative approach.

Much more recently Harvard’s Museum of Comparative Zoology was the launching pad for the research and publications of Prof. Barry Fell who has substantially rewritten the prehistory of North America. Fell, born in England and trained in New Zealand and Edinburgh, came to Harvard in 1964 as a well-published marine biologist and full professor. By 1975 his interests had turned to translating ancient inscriptions and reinterpreting Oceanic archaeology. His trilogy of hardcover books paints a picture of North America as sort of a way station for seafaring immigrants from Asia and Europe. In support of these claims, he sees direct physical evidence in terms of inscriptions and other finds all over the continent. Others do not.

Fell took early retirement in 1977 to continue his researches and publications which now emanate from San Diego where his “Epigraphic Society” publishes the amazing discoveries of Fell and his followers. So far they have mastered every undecipherable written language in the world, and no flat stone with but a few crude scratches on it is safe from translation — even if it comes from your backyard in Pelham, New Hampshire. It is a rather strange, and to some, sad end to a distinguished career in marine biology for Prof. Fell.

So Fantastic Archaeology is many things to many people. To some it is a source of strength and solace to know the past — and even the future. If those beings out there really care, maybe they can help us again in time of need. For others it is amusing cocktail time chat and entertainment; sort of Star Wars (the movie), Raiders of the Lost Ark, and Close Encounters all rolled up in a bright package — good summertime reading. Then there are the old curmudgeons like myself who take offense at the half-truths and gaudy frauds masquerading as real archaeology. What is Fantastic Archaeology to you? It’s your decision, not mine.

The Making of an Archaeometrist
NIKOLAAS J. VAN DER MERWE

NIKOLAAS J. van der Merwe has been appointed Landon T. Clay Professor of Scientific Archaeology in the Dept. of Anthropology. Before coming to Harvard he was on the faculty of the State Univ. of New York, Binghamton (1966-1974) and Prof. of Archaeology at the Univ. of Cape Town.

I was born in 1940 in Rivieronsderend (literally, River Without End), a town of some 200 residents in the wheat-farming area of the southwestern Cape Province, South Africa. This was primarily an Afrikaans-speaking community (only one family in the town spoke English) and I went to school there till age twelve. At that point my schoolteacher father moved the family to Bedford, in the Eastern Cape Province: a town of maybe 1,000 residents, about half English, half Afrikaans. The single school in town taught all subjects in simultaneous translation, which was a unique and valuable experience for the two years we stayed there. At age fourteen I moved with the family to Uitenhage, a bedroom town near the city of Port Elizabeth, and finished the last three years of schooling at a large Afrikaans high school.

During my senior year in high school (1957), Sputnik happened and Brave New Worlds beckoned. This shipping line has long since disappeared, but for about fifteen years it sent one South African student per year to Yale. Its ships carried cargo between the U.S. and the south and east coasts of Africa and they also carted the line’s Yale scholars back and forth (three weeks one way). In this manner I made eight crossings of the Atlantic during my undergraduate years, a pattern which has continued since.

I started at Yale in 1958 as a physics student in a degree program which did not leave much opportunity for courses outside the sciences. One such course I did take, however, was Introductory Archaeology taught by Irving Rouse, which I liked. I filled the single elective on my junior year program with a course on the “Archaeology of Nuclear America,” taught by Michael D. Coe, then a

Continued on next page
A hefty sample of metal. I must confess to the fact that I ground up and burned 2 kg. of Roman nails which had been buried by the 20th Roman Legion in Scotland, to obtain a date in the 1st century A.D. Fortunately, they buried seven tons of nails. Also fortuitously, the best specimens for dating were of the high carbon alloy, cast iron, which has a 2,500 year history in China (as opposed to 600 years in the West) and Chang could lead me to appropriate fragments. It took about 30 grams of cast iron to get a date, which had to be milled into small chips and burned in oxygen to get the carbon out as CO₂: the gas was then purified and counted. Today, one can cut a 100 mg. sliver of cast iron and put it directly in the sputter source of a linear accelerator to achieve the same end. Nevertheless, even with beta counting it was possible to get some useful dates on bits of cast iron of, for example, the Han Dynasty, and I learned some Chinese archaeology in the process. Learning the latter was a natural consequence of the fact that China did not have a radiocarbon laboratory until about ten years ago, thus for more than a decade the only C-14 dates for Chinese archaeology were those iron fragments.

The serendipity I have described here is common in archaeometry. It frequently happens that one starts with a promising method, which requires you to learn quite a lot about the material it can be applied to, and this then leads you on to learn about an area of the world where the material occurred in interesting prehistoric or historic contexts. An uncharitable view of such a pursuit is that of the Method Looking for an Application, or the Archaeological Hammer. ("Give a child a hammer and everything in sight gets pounded.") This tends to go against the grain of the scientific method, which supposedly proceeds from problem through hypothesis to experimental testing and conclusion. In fact, the path of scientific discovery frequently proceeds from enthusiasm to surprising result by way of the unexpected (a process known as Insight), which is why science is fun.

With method in hand (or at least lurking in the Yale Radiocarbon Lab), I set off to the Transvaal to excavate some Iron Age sites and win my Fieldwork Merit Badge — a Yale requirement for the Ph.D. This experience launched me in yet another direction of archaeometry, the study of metals and their smelting. I have pursued this interest in many parts of the world since, mostly Africa, and it has involved fieldwork in Ghana, Nigeria, Kenya, Malawi, Zambia, Zimbabwe, and South Africa. Most of this work has been archaeological excavation and materials analysis (metallography and elemental composition), but the most recent field project was an ethnographic study of iron smelters in Malawi.

My first field experience in South Africa also involved me squarely in the prehistory of the country of my birth. The Iron Age in South Africa is the archaeological manifestation of the culture of black South Africans. At the time I first excavated there (1965), the conventional wisdom was that black people had entered the country at about the same time as colonists from Europe, i.e., about three centuries ago. The third site I excavated extended this time scale to about 1,000 A.D., which had all sorts of political implications and caused considerable controversy. Other workers have since expanded the Iron Age sequence in South Africa back to about 300 B.C., in a complete revision of South African history.

Upon completion of my studies at Yale in 1966, my first appointment was at the Binghamton campus of
He had the mass spectrometer to measure their stable isotope ratios: an extraordinarily primitive instrument by today's standards, in which one equalized the gas pressures of sample and standard by moving a mercury column in a plastic tube up and down by hand and measured the peaks on a paper trace with a ruler. It did the job, however, and by 1976 we could announce that the method worked admirably. Applications followed rapidly from archaeologists and bioanthropologists who recognized the potential of the technique — first in the Illinois Valley, in collaboration with Jane Buikstra, and next in the Orinoco, with Anna Roosevelt. These projects caused some turmoil in archaeological ranks, but that is now history. Subsequent work has involved me with the archaeology of many parts of the world and presented the wonderful opportunity to do fieldwork in such far-flung places as Israel, the upper Amazon, and coastal Ecuador.

Today, dietary tracing encompasses many dietary items and several isotope ratios in addition to carbon; many more will be tried in due course. Margaret Schoeninger, who graced these pages a few years ago when she arrived in the Peabody, contributed substantially to these developments, as did other scientists. (I apologize to all those I haven't mentioned, especially a certain geochemist friend in Los Angeles who has the name of a movie actor.) Mass spectrometer technology has grown by quantum jumps, making new applications possible. My own interests are currently the diets of fossil hominids and animals of great age, using the carbon isotopes in tooth enamel. This method was pioneered by Hal Krueger (of Geochron Labs in Cambridge, Mass.), and Julia Lee-Thorp, a graduate student in Cape Town, and is likely to have considerable impact on palaontology.

What about the future of archaeometry in the Peabody? Landon T. Clay's endowment of a chair in this field provides the challenge for exciting new developments; I hope the first incumbent can rise to the occasion. My colleagues on the fifth floor who have suffered through months of builders' rubble and currently have no heat deserve a preview. The Harvard Archaeometry Laboratories (new name, please note) are nearing the end of their first building stage. The laboratories in the Peabody are designed to deal with the structural and elemental analysis of archaeological materials, such as metals, ceramics, and glass. A bit further down the road, I hope to revive the thermoluminescence laboratory, especially for the dating of sediments beyond the range of radiocarbon. None of this is new; it builds on the original functions of the C.A.R.D. (Center for Archaeological Research and Development) laboratories, set up by Jonathan Ericson and Robert Maddin, but with the intention of expanding into fields of new interest. A range of new developments is planned for the next year or more in the adjoining Hoffman building, which is better suited for laboratories. In partnership with colleagues in the Department of Earth and Planetary Sciences (and others), an analytical facility is being established to measure the elemental and isotopic composition of a wide range of materials. The instrumentation will include mass spectrometers which can measure light and heavy isotope ratios, as well as a plasma mass spectrometer, which measures both elements and isotopes.

From the archaeological viewpoint, the new laboratories will make it possible to embark in many research directions: dietary tracing, environmental reconstruction, the sourcing of man-made materials, to name a few. In short, archaeologists and palaontologists will be able to study many facets of the last 10 million years (we can be generous about the time frame, after all) with analytical precision. Much of this, of course, is only a vision at the moment, glimpsed in a room full of mirrors and blue smoke. It will take a great deal of effort and money and the assistance and enthusiasm of many. I need all the help I can get.

Subscription to SYMBOLS
Symbols will be published once a year by the Peabody Museum and the Department of Anthropology at Harvard. The yearly subscription rate is $4.50. Please make checks payable to "Symbols - Peabody Museum" and send to Peabody Museum, Harvard University, 11 Divinity Avenue, Cambridge, Mass. 02138.
Bar-Yosef

Continued from page 16

the archaeological markers of warfare, the emergence of marked territoriality, and the origins of pastoral societies. Digging with A. Gopher in Netiv Hagdud, an early Neolithic village in the Jordan Valley (1983-1984) and in Nahal Hemar Cave (1983) led me to the re-examination of the Jericho site reports. As a result, I was able to offer an alternative explanation for the Jericho Neolithic walls which I believe were erected in order to prevent the flooding of the early village. If this interpretation is correct, and organized warfare can be traced only to the mid-sixth millennium B.C.E. and is not an original ingredient of the agricultural revolution, then we can hope that the track of wars which the Near East, as a region, has trod for such a long time will reach a peaceful stage as an end result of the current industrial revolution.

Completing a personal circle and following the debate of the age of Middle Paleolithic hominids, I organized the new excavations at Kebara Cave with B. Vandermeersch. We tried a new form for the organization of the expedition. Officially it is headed by the “Ten Directors” (including B. Arensburg, A. Belfer-Cohen, P. Goldberg, H. Laville, L. Meignen, Y. Rak, E. Tchernevo, A.M. Tillier) while the two of us serve as coordinators. After seven seasons of excavations (since 1982) we are still friends and have no major disagreements. We have learned that when geologists, bioanthropologists, palaeontologists, and archaeologists share the same field experience, we all gain a better understanding of the site and its contents. We plan to continue the excavations at Kebara but this site is only one part of the project concerning the origins of modern humans. Hayonim Cave, which contains deposits that pre-date Kebara awaits us for the 1990s. And, of course, there are some other countries in the Old World where similar projects can be put together.

In brief, the above are the kind of memories, experiences, and plans that I bring with me to Harvard, hoping to carry on and develop the research around the two major revolutions in human history—the evolution of modern humans and the emergence of farming communities.

You are invited to join the Peabody Museum Association. As a member of the PMA, you will be part of both a famous teaching and research institution dedicated to the study of man and culture and a Museum whose unique collections include works of primitive art and archaeology from all over the world. PMA members are friends of the Museum and support it with their annual membership. Members are invited to exhibition openings, receptions, special events, lectures, films, and so forth. They enjoy special privileges at the Tozzer Library and a discount on Museum publications and at the Peabody Museum Shop. Membership includes a subscription to Symbols. Categories of membership are: Student ($15), Individual ($20), Family ($30), Contributing ($50), Sustaining ($100 or more), Fellow ($500 or more).

All gifts to the Peabody Museum are tax deductible within legal limits. Please make checks payable to the Peabody Museum Association.