AnthroQuest ****

The Newsletter of the L.S.B Leakey Foundation

No. 3, Spring 1997

Remembering Mary Leakey

By Amy Hunsinger

A pioneer in the field of human origins research, Dr. Mary D. Leakey died on December 9, 1996 in Nairobi at age 83. I talked with several people whose lives she touched, as both a colleague and a friend, about her extraordinary career and life in East Africa.

Frank Brown, a geologist at the University of Utah, first met Mary in 1966 when he was sent over to Africa to look at the Omo sequence.

Richard Hay, a geologist at the University of Illinois-Urbana, met Mary for the first time in the summer of 1962 while working on the geological sequence at Olduvai.

F. Clark Howell, a professor emeritus at University of California-Berkeley, began a friendship with both Mary and her husband, Louis, in London after spending a summer excavating at a French Upper Paleolithic site in 1953.

Maxine Kleindienst, an archeologist at University of Toronto, made Mary's acquaintance initially in 1956 when she was a graduate student doing fieldwork in East Africa for her thesis.

Alan Walker, a paleontologist at Pennsylvania State University, lived in Uganda in the mid-60's and made a visit to Nairobi where he was first introduced to Mary at a lecture.

The following is a synthesis of reflections on Mary from interviews I conducted with the above individuals this spring.

On Her Discoveries

Mary is responsible for some of the most remarkable and spectacular discoveries in the history of paleoanthropology. In 1948, she uncovered her first major find, an 18 million-year-old ape skull of a creature called *Proconsul* which contributed to establishing Africa as the cradle of



Mary Leakey

humanity. The discovery of the 1.8 million-year-old skull, dubbed "Zinjanthropus," in 1959 at Olduvai seemed to capture public imagination to an extent that no previous find could match, while the Laetoli footprints gave the clearest evidence for bipedalism in early hominids. All of these finds hold lasting significance today.

"When Mary found [Proconsul], the precursor of British Airways flew her free to London with the skull in a little box. She was met at London airport by a great crowd of reporters and driven with a police escort into the city and so on. She showed the fossil off at the British Museum. . . . So in Britain, she already had a reputation for finding extraordinary fossils in 1948."

-Alan Walker

"Mary and I drove down to Olduvai from Nairobi, and arrived in time for lunch. Her son Jonathan was supervising excavations at FLK-NN. He came up and handed his mother something wrapped in his handker-

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Mary Leakey's Legacy to Palaeolithic Archaeology

By J. Desmond Clark

The following is excerpted with minor editing from Clark's introduction of Mary Leakey to the Chancellor of the University of Witwatersrand, Johannesburg when she was conferred with her first Honorary Degree in 1968 as well as his talk at "Hominid Evolution in the African Savannas: A Symposium Honoring the Culmination of 50 Years of Human Origins Research by Dr. Mary D. Leakey in East Africa" held in Nairobi in 1984.

Especially do I remember my first visit to Olorgesailie with Mary in 1943 where I saw the exploratory excavations they had done to uncover the horizons on which lay large numbers of Acheulian bifaces with fossil bone. Seeing this site revealed to me for the first time what is perhaps Mary's greatest contribution to palaeo-anthropology, namely the use of new, meticulous methods in the excavation of Palaeolithic sites of high antiquity. It had been customary for very early artifacts to be removed piecemeal, as though they were geological specimens. From her early training on the floors of Celtic settlements in Britain, however, Mary realised that some of the Early Stone Age 'floors' of Africa could be treated in a similar way: the whole occupied area opened up and every stone and bone precisely mapped. These techniques were applied with fruitful results to the rich handaxe site of Olorgesailie. Until her excavation of that site, almost all work on the Palaeolithic was done in relation to gravel pits and done from a vertical face with pick and shovel. But Louis and Mary realised that in East Africa there existed, often minimally disturbed, the very occupation places of the hominids

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President's Message: In Tribute to Mary Leakey

June 1997

Dear Members,

I think Mary would be somewhat amused by all that has been written about her in the months following her death. She was not one who sought publicity, but rather thought that her work should stand on its own merit. Nevertheless, Mary Leakey was extraordinary—not only for her

accomplishments, but for her high standards and integrity—therefore, we at the Foundation feel compelled to note Mary's passing by dedicating this issue of Anthro Quest to her.

I first met Mary about 15 years ago when she gave a lecture in Denver for the Leakey Foundation. I had heard that she was not fond of speaking engagements, so I arrived early in an effort to ease her nerves and help to prepare for her talk. Quickly, I learned that Mary was quite capable of making herself comfortable. She set her own agenda, and one could never assume to know what was on her mind. Elaborate plans to entertain Mary were unnecessary. She was just as likely to be examining the garden as conversing with another "who's who" at an event.

Some considered Mary to be a shy person. However, I think a more accurate assessment is that she was not inclined to "small talk" and tended to speak only when she felt she had something significant to contribute. Despite this characteristic, she thoroughly enjoyed being drawn out by people with a sincere interest in her work. Mary gravitated toward people who reflected what I deem to be her own best attributes: competency, independence, honesty, and forthrightness. She had little time for pretense, and was not easily impressed. Mary's formidable reputation preceded her and many found her intimidating. While she didn't go to any lengths to



make those she met feel differently, I think she appreciated people who held their own with her. Mary's respect was hard won, but once accorded, it was also persistent.

A number of years ago, Mary spent several weeks at our home recuperating from hip surgery. She was determined that her recovery would be quick, in order that she

could walk down the aisle to receive an honorary doctorate from St. John's College—an event scheduled just six weeks after the surgery. I was concerned that our busy household, complete with a graduating high school senior whose immediate interest was in enjoying a carefree spring, would be detrimental to Mary's ambitious plan. But to my surprise, Mary reveled in the chaos. She took full advantage of the staff of "future nurses" (i.e., my daughter, Alexis and her friends) who assisted Mary in learning to walk again. And yes, she did walk to the podium to receive her degree!

Mary was not self-congratulatory, but did take pride in the accomplishments of each of her family members. The younger Leakey generations hold promise for the legacy of the world's "first family" of archeology to continue. I was especially touched by a letter from Richard Leakey soon after Mary's death in which he expressed that their family "will miss her but are proud to have had her as mother, matriarch, mentor and critic." I know that the members of the Leakey Foundation family are proud of our long association with this remarkable woman and will miss her as well.

Sincerely,

Kay Harrigan Woods President



The Leakey Foundation

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We are proud to announce that the Leakey Foundation has produced a 1998 Understanding Great Apes calendar which will be available to our members in October 1997.

Remembering Mary continued from page 1 chief. Mary looked at the bone fragments, and handed them to me, without comment. Being put on the spot, I inspected them and ventured — 'no sagittal crest.' 'Yes,' she said, 'Oh god, he's gone and found *Telanthropus!*' That was the first find of *Homo habilis*, and Mary fully appreciated the controversies that would ensue."

-Maxine Kleindienst

"As far as Mary's life as a discoverer is concerned, I think the footprints have to be the most important. Without a doubt, they have become a sort of icon for paleoanthropology, in that they show fossilized behavior and establish beyond a doubt that the *Australopithecines* were bipedal three-and-a-half million years ago. So that surely, in terms of discovery, was her most important." *-Alan Walker*

"After the footprint discovery, Paul Abell and I went back and told Mary and everyone else what we may have there. A crew went out to sweep the floor, so to speak, and clean things up. Then everyone gathered around—I have a picture of it and of how fully happy everyone was that we finally have those hominid footprints. Now I've heard various stories where she didn't buy this in the beginning, but I have the picture taken at the end of the first day where everyone is smiling. . . . Yes, that was quite a day." -Richard Hay

"I think her greatest contribution is the amassing of large amounts of very carefully documented data from Olduvai. That's the resource that other people have used time and time again. there are dozens and dozens of

people who've made their Ph.D. theses going back to analyze the carefully collected material that Mary got from her excavations. She set new standards and invented them on her own." -Alan Walker

On Her Contribution to the Conduct of Science and Scientists

Not only did Mary make a string of spectacular discoveries that constitute major markers in our understanding of human evolution, but she also revolutionized Early Stone Age archeology by attempting to place her discoveries in context and set a standard of conduct for other scientists by example.

"Mary was very well aware and took a very strong responsibility for the fact that once she excavated these

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who made the tools. So, overnight, as it were, Mary changed all this scrabbling in gravel pits and opened up new possibilities for Palaeolithic research which she has pursued unceasingly for the past forty years and more. Her approach has been widely adopted and is now considered standard practice in archaeological excavation.

Louis Leakey was never a very good excavator—he was too impetuous and impatient to move onto new things—so that it was Mary's insight and talents that brought these revolutionary excavation and recording methods to the team studies that began in the years immediately after the Second World War. Their results can best be seen at the locality made famous by them - Olduvai Gorge - that contains a record of human history that, for its continuity and completeness for Lower and Middle Pleistocene, is unsurpassed by any other site in the world. I would emphasize that what is so significant about Mary's contribution is that she gave us the third dimension, namely the horizontal distribution of assemblages of stones and bones, on-what was also unique for this time—the relatively undisturbed places of the hominids themselves. This then was the imprinted



Mary Leakey and Desmond Clark

record of the past, later to be made even more spectacular by the discoveries of the bones of the hominids themselves and of their footprints at the now equally famous Laetoli site. No one had done this before and no one had yet believed that it was possible to do it. Mary did and the meticulous way in which she and her helpers uncovered and plotted the distribution patterns of artifacts, bones, features and the remains of the hominids themselves made possible for the first time a study of what all this might mean in terms of

the behaviour of the hominids who brought them all together. So we could now begin to study what it was they were *doing* with their tools, to start to look at the function instead of treating the artifacts as type fossils, interesting for their morphology alone.

I want to impress on you how much this meant to the archaeologists working on the Palaeolithic and how much it means to those of us who carry on the investigations today. We can now begin to talk about what prehistoric man was doing with

greater confidence in our hypotheses for it is the possession of a number of precise, empirical studies such as those Mary has carried out at Olduvai and elsewhere, that provides the evidence on which all our inferences concerning early hominid behaviour must be based. While the hypotheses and models of today will be swept under the carpet or become so modified as to be almost unrecognisable in twenty-five years' time or less as new evidence becomes

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things, their context would only be in her notes and in her photographs and drawings. So she used to say, 'It doesn't matter what people think of our ideas in the future, as long as the facts that we wrote down are correct.' So she devised methods of her own. Louis was a very impatient and hurried person and had a short attention span, whereas Mary could concentrate on things for long, long periods of time and do them meticulously."

-Alan Walker

"I think you have to look at her contribution, first of all, in terms of a finder of fantastic fossils. She had a fantastic eve for that . . . [But in a broader sense], I would say her absolute integrity as a field worker: if Mary said something came from somewhere in a certain context, you knew that it did. . . . We always argue about each other's interpretations, but the validity of any field science depends on the observer and on the integrity of the observer. If you don't have that, then there are problems, but we always trusted her. ... Since we know that where she found things is where she said she found them, her basic research will stand. . . . I think she was at the forefront of her time . . ." -Maxine Kleindienst

"Mary was a strong person with strong ideas about good and bad. She had strong ideas about things to be concerned with and things not to be concerned with, about how things should be done . . . This was a very fundamental and also very complex, broadly capable, and evolving person."

-Clark Howell

"Mary's scientifically significant contribution is an entire body of work. In particular, her long stay at Olduvai, and her tenacity at working out everything she could at Olduvai with the help of other people: getting other people interested and putting them up through the worst of times at Olduvai, making sure the camp was open but seeing that that one piece of geology and Paleoanthropology was understood, and then Laetoli was the same thing. She was really the nucleus of Laetoli itself."

-Frank Brown

"Mary's motivation stemmed from the excitement of the unknown, the pleasure of identifying a problem and solving it.... Her research was driven to a large extent by curiosity about the past and the wish to recreate and understand the past with scientific methods. In archeology, her curiosity was coupled with the urge for perfection, to get the facts concerning a site recorded as completely and accurately as possible. To this end, she had an insatiable interest in accurate stratigraphic correlations."

-Richard Hay

On Her Personality

Mary was not someone who gravitated toward the limelight, so it can be difficult to get an impression of her character. In talking to those who knew her well, what shines through is that she was focused and tenacious. Hay emphasized that "the important thing is the rigor she put into everything she did." Others admired her hard work and straightforward approach to all aspects of living.

"Mary was a very focused person in the middle of what I would regard as a hyperactivity—many people, many responsibilities, many things falling on them, and running a family. . . . It was a continuous flow of people, family, friends of family, telephone ringing, cars and Landrovers running back and forth. . . . Maybe by midnight it quieted, until people got up at 5:30 or 6:00 in the morning."

-Clark Howell

"Mary juggled things very well and she simply took everything in stride. Even as one role diminished—as she was no longer a mom and didn't have to worry about the boys—she simply filled



Mary Leakey (center) and members of the Laetoli team standing over the hominid footprints on the day they were found. *Courtesy of Dr. Richard Hay*

it in with something else, with all the grandkids. When things at the Museum were dropping off, she started taking groups down to see the rock art. She was always busy and it didn't make any difference down to the end—she was at Laetoli just last summer. She was always finding something to fill time. . . . She was just a very high energy person and got lots done very efficiently."

-Frank Brown

Mary was so productive and accomplished that one almost wonders whether she might have been a member of a species evolved beyond the rest of the population! But she too was human, and while she accepted without a second thought that juggling responsibilities is part of life, there were occasions when even *she* was torn between different obligations.

"Mary said that when she was working north of Nairobi in the Rift Valley on one of the Holocene sites, an emergency arose at one of the farms nearby. Jonathan was then a young child and he was out there with her in the field. So she attached him to a tree with a tether and rode off to deal with the emergency. [Jonathan] never wanted to become an archeologist and she always said, 'Maybe its because I tied him to the tree!' She worried about it. She didn't share that very much, but once in a while she'd tell some story and you got a hint that, yes, she had to juggle things, like we all do between profession and children and so on."

-Maxine Kleindienst

Mary possessed extraordinary determination and toughness—nothing could stand between her and what she

wanted to do. In hindsight, considering impediments such as extended periods of meager finances and the harsh conditions in the bush she faced daily, these characteristics were probably a prerequisite for her level of achievement. But because her approach to work, and to life in general, was so pragmatic, she was able to conduct her research with uncompromised purpose.

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"Mary had remarkable determination. She had a single-minded approach to getting the job done without any distractions—she wouldn't allow anything to distract her while she was working. It was most remarkable especially considering the fact that she had no professional training. She . . . established standards that are still applicable today."

-Alan Walker

"Camping at Olduvai with dogs, cigars, and whiskey was an essential part of Mary's life for many years. It gave her feelings of freedom and the anticipation of new discoveries, large or small. After visiting the gorge with Louis in 1931, Arthur Tindell Hopwood said, 'For every day there was something new; small things most of them, but always of surpassing interest.' His statement aptly characterizes Mary's feelings about living at Olduvai Gorge. In a letter from September 1996, she wrote to me, "I lead a dull life in suburbia . . . [and] do miss living in the bush." -Richard Hay

"She always said that she was interested in the evolution of people's behavior and their use of the landscape and what they did with their lives. She regarded *Homo habilis* and *Australopithecines* as people and so she was interested in what they were doing. I don't think I'm being unfair to her in saying that she wasn't a philosopher. She was a much more practical person, an empirical person. She wanted to collect *good facts*. . . . I think because Mary wasn't a philosopher, it may be that she had fewer preconceptions." *-Alan Walker*

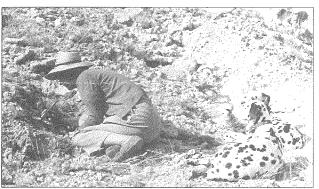
"Mary stood out as a person who belonged to herself, in the sense that when I heard conversations, she wasn't simply passively letting things go by or agreeing with everyone. She clearly had a mind of her own and didn't mind expressing it."

-Richard Hay

"She had a kind of diffidence about her . . . She was matter of fact, she was rarely strongly emotional. She didn't wear her heart on her sleeve. I've seen her when she was disturbed about things and I talked to her about disturbing things, but I never saw her weep." -Clark Howell

"How tough she was! Here's a little anecdote. One day, I saw her in her secretary's office and she had her foot up on a stool. I said, 'Mary, what happened to your foot?' And she said impassively, 'Oh, I slipped on some rock at Olduvai, twisted my ankle.' 'Can I feel it?' I asked. She said, 'Sure.' So I felt the ankle and I felt little pieces of bone crunching around inside. Mary didn't flinch, she just carried on puffing on her cigar. I said, 'Mary, you know, maybe this is something serious. You should go to the hospital and have an x-ray. I'll call the Chief of Radiology and make sure you don't have to sit around.' So we went to the hospital and she'd broken both bones in her ankle, the tibia and the fibula!"

-Alan Walker



Mary brushes soil away from the teeth of the "Zinj" skull she had just discovered. Copyright Des Barlett

Mary was tough on herself and had the same expectations of others. She was a role model, but not deliberately so. She just held the fundamental belief that all people are responsible for accomplishing and taking care of things for themselves. This trait sometimes manifested itself in stern treatment of others, but it was rooted in her assumption that all people are capable.

"Mary just never doubted that you could do it. The first or second day you appear in Nairobi and she doesn't really know you very well, but she says, 'Here's the keys to the car, go get something.' She just expects people to *perform*, that's all. . . . It was just taken for granted from that point of view. . . .

She didn't discriminate. She just assumed you could do it as well, or better."

-Maxine Kleindienst

"I'll never forget one fellow . . . came in to check the stratigraphic position of some hominid skulls, which put her off. But even worse, he told her what was wrong with her beloved Dalmatian bitch. He was probably right, but I think Mary had him out on a bus the next day or the day after!"

—Richard Hay

Mary rejected outright any suggestion that her gender hampered her in any way or that it made her accomplishments more impressive. Kleindienst pointed out that she had female mentors, including Gertrude Caton-Thompson who was among those who introduced Mary to archeology. But even unwittingly, Mary stands out as a role model for *anyone* interested in pursuing the study of our origins.

"It's impossible to say, but if Mary had gone through the normal route of qualifications and apprenticeships and permit-getting, she might have run smack up against the 'old boy's club' straight away. So the fact that she didn't have to, that she could just go out, without any permissions, work in the middle of nowhere, or-

ganize her own life, and do all this work meant that she was oblivious to that side of what can be distracting for a female career."

-Alan Walker

"As a matter of fact, Mary is a wonderful role model. . . . She showed that a woman can succeed and be recognized at the highest levels in a field that had been controlled chiefly by men. I doubt, though, that she gave much thought to being a role model."

-Richard Hay

Mary Leakey's contribution is so significant she will not be forgotten, but she will be missed. "It's a loss. It won't be quite the same going back there without her," said Brown. "No, not at all," agreed Howell.

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"... what is so significant about Mary's contribution is that she gave us the *third dimension*..."

available, the recorded data from the activity sites themselves are there for all time as the unchanging foundation for forming new hypotheses with the expanding perceptions of more advanced methodology. Every stone tool and fragment and every piece of bone was meticulously uncovered, labeled, plotted and later studied in the lab. Out of this grows an understanding of the relationships between different kinds of artifacts, between artifacts and bones and those of the whole assemblage to the plants and animals of the locality, the ancient topography and palaeo-geography of the site. So we begin to study a dynamic system, not simply a single, small part of that system.

I shall never forget the revelation it was to me to see at Olorgesailie in 1943 the exposed horizon with everything in position just as it had been found; and later, 1961, to be privileged to be one of the three-with Professors Dart and Arambourg-to visit Olduvai and be shown—as we crawled with our eyes a few inches above the ground—the last one metre strip of the Zinjanthropus floor with the many hundreds of stone and bone fragments in intimate association. No one could doubt that here was one of the relatively undisturbed activity places of some of our earliest tool-making ancestors, where they had lived and carried on some of those activities that caused us to evolve into what we are today. Nowadays this kind of excavation and analysis is the rule rather than the exception and we owe its inception in very large part to Mary Leakey.

Calendar of Events

1997 June 9 Lecture by Frans de Waal

"Apes from Venus: Bonobos and Human Social Evolution" California Academy of Sciences, San Francisco, CA*

September 28- Annual Meeting, Cape Town, South Africa

October 3

December 5 Board of Trustees Meeting, Stanford University

Granting Session

December 6 Symposium, Stanford University

(subject and speakers to be determined)

1998 February 19 Annual L.S.B. Leakey Lecture

California Academy of Sciences, San Francisco, CA*

(speaker to be determined)

April 24 Board of Trustees Meeting, San Francisco, CA

Granting Session

April 25 Leakey Prize Award, San Francisco, CA

Honoree(s) to be announced

May 24 – **Tour of Turkey**

June 13 (final dates and location to be determined)

*Open to all members

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The Leakey Foundation

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