

Richard Leakey: An Enigma

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ABSTRACT:

Richard Leakey is a renowned figure in the field of human evolution and wildlife conservation. The present manuscript highlights his achievements in human evolution and wildlife conservation along with a take home message for the budding anthropologists. Here is a man with a donated kidney, no formal education after the age of 16 and walking on artificial limbs still making his mark in these fields. The manuscript also has a take home message for the students.

Key Words: Richard Leakey, Kenya, Human Evolution, Australopithecus, Lake Turkana, Conservation

THE BACKGROUND

To me a professor is one who professes. I feel that for the benefit of our new generation of anthropologists, a professor should try to percolate his/her knowledge and ideas to them. This will serve as an impetus to them and take the subject forward in this world of interdisciplinary research. As a Professor of Anthropology, I am of the opinion that I should document some of my ideas and inspirations for the benefit of our new budding anthropologists.

Human evolution is something that always enthralled biological anthropologists. We all who are familiar with human evolution cannot omit the name Richard Leakey when we study human evolution. It is a name considered to be synonymous with human evolution. His parents, Louis and Mary Leakey, were also very renowned paleoanthropologists who spent their entire career excavating human remains in the Olduvai Gorge, East Africa. The *Zinjanthropus boisei* fossil was excavated by them in the year 1959 from this gorge. Later on this fossil because of its enormous teeth was called “Nutcracker Man”. The first evidence of the species *Homo habilis* comprising of a fossilised lower jaw and teeth was also unearthed in Olduvai Gorge by them in 1960. These discoveries helped brought them to the limelight and

they received generous research funding from the National Geographic Society. Subsequently paleoanthropology became a serious matter of research in the Olduvai. Today, the Leakeys are sometimes referred to as “the first family of paleoanthropology”.

WHY RICHARD LEAKEY?

I was always fascinated by the exploits of the Leakeys. Let me bring in a small story possibly unknown to many of us. This involved Louis Leakey and Jane Goodall, the famous primatologist who is still working among the chimpanzees of Gombe. While visiting a friend’s farm in Kenya in her early twenties with no prior experience, Jane was lucky enough to meet Louis who hired her as his secretary. Her attention to detail, patience and extensive knowledge of wildlife strongly impressed Louis. Despite having no formal degree, Leakey asked Jane to study chimpanzees in the wild. Jane, then aged just 26 years, travelled to Tanzania in 1960 to find the chimpanzees she would research and the rest is now history. We all know about Gombe. Louis made this possible by helping her get a grant from the Wilke Foundation. During this period, he also motivated Biruté Galdikas to study orangutans and Dian Fossey to study gorillas. These three researchers are now known as the “Trimates”.

Richard is an enigma to me. He dropped out of school at the age of 16. Later on he completed his High School education. With no formal degree in anthropology, he has become one of the authorities in human evolution and wild life conservation, especially relating to the *Australopithecus* lineage. He is a person who is living on borrowed time with a kidney donated by his brother and moving on artificial limbs after his legs were amputated below the knees as a result of an airplane crash.

MY FIRST CONTACT WITH RICHARD

It was in the year 1989, when I was a student of my post-graduation course in Anthropology in the University of Calcutta. During those days there was no internet, email, mobile phones, leave alone smart phones. We used to leaf through books and journals in the departmental library and take down notes. I noticed a current issue of the journal *American Journal of Physical Anthropology* and there was a paper by Richard Leakey. The complete citation is given below:

Leakey RE, Walker A. 1988. New *Australopithecus boisei* specimens from east and west Lake Turkana, Kenya. *Am J Phys Anthropol* 76(1): 1-24.

I decided to write a letter to him. During those days communication was not as easy as today. I purchased an aerogramme which was possibly worth Rs. 6 and 50 paise from the post office located in Ballygunge Science College to write a letter to Richard. But I had this gut feeling that although I am writing to him, Richard, being such a renowned researcher, would hardly have the time to reply to me. Little did I realise that a surprise lay in store for me. About a month later, a reply arrived from Richard in the form of a letter written and signed by him. I was absolutely elated. I showed the letter to our teacher who used to teach us human evolution, Dr. Tulika Sen. She read the letter and exclaimed “You wrote a letter to Leakey!.” She went on to say that never in her teaching career till date did she find any post-graduation student writing such letters to the legends of anthropology. She told me to treasure the letter. I still have this letter with me and it served as a source of inspiration to me. I continued to regularly have correspondence with Richard, both on the form of handwritten letters and later by email.

In the meantime, I managed to get hold of the auto-biography of Richard, entitled *One Life* that was published in the year 1984. There was just a single copy available and that too in the British Council Library. After reading the biography, I began to ponder about his courage and resilience.

FAMILY BACKGROUND OF RICHARD

It was in Nairobi, Kenya where Richard Erskine Frere Leakey was born on December 19, 1944. Louis and Mary Leakey had three sons and he was the second of the three. Interestingly, at the age of 16, he left school. His love for paleontology was first ignited when he led an expedition to a fossil site he had discovered while flying as a bush pilot. Frustrated by the lack of recognition he received for his accomplishments as he had no scientific credentials, Richard left for England to continue his education. However, this lasted only six months, and after the completion of his high school program, on his return he continued his safaris and work at the National Museum of Kenya. He never returned to the university to obtain a degree.

In 1966 Richard married Margaret Cooper who was herself a renowned archaeologist. Subsequently the couple started their journey in excavating hominid fossils. Three years later, both of them divorced. In 1970, Richard married Meave Epps who is a palaeontologist. Epps hogged the limelight for discovering the *Kenyanthropus platyops* ("flat-faced man from Kenya"). Richard and Epps have two daughters, Louise (born in 1972) and Samira (born in

1974). Meave continues in the true tradition of the Leakeys and is now a very successful paleoanthropologist. She has many new interesting discoveries such as *Australopithecus anamensis* in her name. Louise, meanwhile, continued in her parents' footsteps, having completed a Ph.D. in paleontology in 2001, and actively conducting paleoanthropological research in Kenya.

RICHARD'S ENTRY INTO ACADEMICS

Richard first official assignment was the administrative director of Kenya's National Museum in 1968. Ironically he joined as the administrative director the same week when he was afflicted with a serious kidney ailment. The ailment routinely interfered with his daily life and health. His research work was hampered and he began to restrict his activities to the running of the museum. His doctors in London told him in January 1969 that his own kidneys would best last another decade. As it turned out, the predictions of his doctors were spot on. His kidneys failed and kidney replacement was the only viable option that remained to be exercised. Richard's brother, Philip donated a kidney to him in the year 1979 and a new life began for him. He penned his first autobiography *One Life* when he was admitted to the hospital for his kidney transplant. After completing a long and rigorous process of recovery Richard continued with his work, both on excavations and in the museum with renewed vigour. Another mishap occurred in the year 1993, when he lost both his legs when his propeller-driven plane crashed. Sabotage was suspected, but never proved. In a few months Richard was fitted with artificial limbs and was walking again. I would suggest that all students of Anthropology should read his auto-biography *One Life*. In my opinion, this will act as a great source of inspiration for them.

ENTRY OF RICHARD INTO STUDIES OF HUMAN EVOLUTION

Richard was originally reluctant to follow his parents' career and instead took up the profession of a bush pilot and a safari guide. In 1967 he was a part of an expedition team to the Omo River valley located in Ethiopia. During this expedition, two partial fossil hominin skulls were excavated. These were christened *Omo I* and *Omo II*. It was also during this trip that he noticed the site of Kooba Fora located along the eastern shores of Lake Turkana (Lake Rudolf) in Kenya. Subsequently he led a preliminary search to Koob Fora and unearthed several stone tools. Later expeditions to Koobi Fora lead Richard and his fellow researchers to excavate around 400 hominin fossils that represented about 230 individuals. This brought Koobi Fora to

the limelight as the site of the richest and most varied assemblage of early human remains found to date anywhere in the world. Interestingly, even though without a formal University degree, he benefited from the fame of his well-known parents. He received generous funds from the National Geographic Society to carry out his research. From 1968 to 1989 Richard continued as director of the National Museums of Kenya, before moving on to wildlife conservation.

It was his on the recommendation of his illustrious father, Louis that Richard ventured into the Omo Valley in Ethiopia. It was a part of an international fossil-finding project. Richard worked under the shadows of his parents for years. His instinct was to create his own space in the area of human evolution and not follow the footprints of his parents. Lawrence Martin, Director of the Turkana Basin Institute (TBI) once remarked that Richard did not want to take over anywhere his parents had worked and that he wanted to do something new and different. This was achieved sooner than expected. A new fossil rich site was discovered on the return flight from Ethiopia to Nairobi. A new fossil rich site was discovered when on the return flight from Ethiopia to Nairobi, the pilot descended over the eastern shore of Lake Turkana due to inclement weather. The inquisitive eyes of Richard spotted something intriguing: potentially fossiliferous sedimentary rocks. On his return to Nairobi, Richard kept on pondering about the new site. Subsequently he hired a helicopter to have another look at Lake Turkana. He landed there and was astonished to find a rich assemblage of fossils and artifacts. His instincts beckoned him that he was into something very special and unique. He completed surveying the area by 1968 and approached the National Geographic Society for funding. The National Geographic Society released funds and Richard was able to lead his own expedition and establish a base camp at Koobi Fora with his team of several dedicated young student researchers. The excitement so nostalgic that later in Richard remarked he was excited to have finally found a site with fossils where neither of his parents had ever been before and that it was not their show, it was his own show which gave him a lot of enthusiasm.

RICHARD EXPLOITS IN HUMAN EVOLUTION

Once the base camp was established in Koobi Fora in 1968, Richard did not look back. Excavation of fossils and artifacts continued for years, if not decades. Such was the rich assemblages that the evidence was splashed on the cover of the world's most admired, widely cited and accepted scientific journal *Nature* an unparalleled 11 times. He was so much committed towards his exploits that he partnered with Stony Brook University in 2005 to establish the Turkana Basin Institute (TBI). Through the aegis of this institute, Richard

continued to inspire young researchers to step into his shoes and to become the next generation of fossil finders. The TBI is now constantly thriving to provide world-class crucial infrastructure for researchers at one of the world's most prolific places for finding evidence of human evolution, all these with the aim to understand our very origins. Details of this institute are appended later.

Despite the challenges faced by Richard and his team in Lake Turkana, a major discovery was made on the year at Koobi Fora in 1969 called KNM-ER 406. It was identified to be a *Paranthropus boisei*. Interestingly, the first specimen of this fossil hominid was called the *Nutcracker Man* that his parents excavated in Olduvai. Richard had then remarked that 406 really marked the beginning of their success in the same way that *Zinjanthropus* marked the success of Louis and Mary Leakey. He added that it was very exciting and confirmed that he had got a good site. In his early exploits, two important fossil finds bear mention. One is ER 1470, a skull which belonged to the *Homo habilis* and the other ER 3733, a *Homo erectus* skull. The skulls were excavated in 1972 and 1975. Three years later an intact cranium of *Homo erectus* (KNM-ER 3883) was discovered. In the year 1972, a major discovery from Koobi Fora awaited Richard's team. It was the find KNM-ER 1470. A massive reconstruction exercise was undertaken by Meave when she reconstructed their find from more than 300 fragments of fossilized bone on 1972. The result was exuberating: a nearly complete cranium of an early *Homo*, dated at roughly 1.9 million years old. This find, KNM-ER 1470 drew major international attention. Leakey believed that the skull represented *Homo habilis* and that KNM-ER-1470 was a relatively large-brained, upright, bipedal form of *Homo*. This find existed in eastern Africa between 2.5 million to 3.5 million years ago. Although sceptics called it *Leakey luck*, Richard truly stepped outside his parents' shoes. He was revered as a Kenyan paleoanthropological pioneer. The *Time* magazine honoured him by putting him in its cover page along with a re-creation of *Homo habilis*.

The year 1972 was also the year when his father, Louis Leakey died. An obituary was published by none other than Michael H. Day in the year 1973. Michael H. Day's *Guide to Fossil Man* is still considered to be the standard reference work on hominid remains found at the major hominid sites throughout the world. The complete citation of the obituary by Day is appended below:

Day MH. 1973. Louis Leakey. *J Anat* 114(Pt 3): 463-464.

During the 1970s, the excavations at Lake Turkana were extremely fruitful for Richard and his team. Many significant discoveries came to the fore. Here I must mention the find

KNM-ER 1813. This is perhaps one of the most complete *Homo habilis* skulls ever excavated. The other is a well preserved *Homo erectus* skull (KNM-ER 3733). In 1984, Kamoya Kimeu, a renowned fossil collector and Richard's right-hand man, excavated what is known as *Turkana Boy*, a nearly complete skeleton of a *Homo erectus* youth dated roughly 1.6 million years old. Lawrence Martin later remarked that *Turkana Boy* showed that by 1.6 million years, evolution produced something that from the neck down was pretty much like anatomically modern humans, but from the neck up, clearly still different. The very next year, Leakey along with his colleague and anthropologist Alan Walker discovered KNM-WT 17000. This was christened as the *Black Skull*, and find was reported in the journal *American Journal of Physical Anthropology*, It was this find which I had read about in the *American Journal of Physical Anthropology*, and wrote my first letter to Richard. Till date this is the only known adult skull of the species *Paranthropus aethiopicus*.

Richard proposed controversial interpretations of his fossil finds. In two books authored with Roger Lewin, *Origins* (1977) and *People of the Lake* (1978), he presented his view that, some 3 million years ago, three hominin forms coexisted - *Homo habilis*, *Australopithecus africanus*, and *Australopithecus boisei*. The two *Australopithecus* forms became extinct and *Homo habilis* evolved into *Homo erectus*. Richard further argued that *Homo erectus* was the direct ancestor of *Homo sapiens*, or modern human beings. He supported his above arguments from evidences at Koobi Fora.

Once needs to delve into the pages of his book *The Making of Mankind* (1981) where he has further elaborated his views on human evolution with special reference to east Africa. Another of his books needs to be mentioned here. It has been authored along with Roger Lewin and is titled *The Sixth Extinction: Patterns of Life and the Future of Humankind* (1995). It was now amply clear that Richard was now moving towards the issues of wildlife conservation. In this book, they have categorically held humans responsible for the huge reduction in the number of plant and animal species on the Earth. In the year 2001 Richard along with Virginia Morell published his second memoir *Wildlife Wars: My Fight to Save Africa's Natural Treasures*. In this memoir, Richard narrates the full story of his crusade to save Kenya's natural resources, especially the elephants.

INTO WILD-LIFE CONSERVATION AND POLITICS

Slowly the focus of Richard shifted to the various contending aspects of wildlife conservation and by the year 1989, he became deeply concerned with the impending issues of

Kenyan wildlife resources. Elephant poaching for ivory became a major crisis for the Kenyan government. Richard was handpicked by none other but the Kenyan President Daniel Moi to lead Wildlife Conservation and Management Department (the precursor to the Kenya Wildlife Service (KWS) in 1989. This was a tough job which was made even tougher by political interferences. Devoted to the preservation of Kenya's wildlife and sanctuaries, he embarked on a campaign to reduce corruption within the KWS, crack downs (often using force) on ivory poachers, and restore the security of Kenya's national parks. In doing so he made numerous enemies. He survived a plane crash in 1993 but with a heavy cost. He then continued to cite interference by the Daniel Moi government and in 1994 he resigned.

Subsequently, Richard became a founding member of the opposition political party Safina (Swahili for Noah's Ark). Their main agenda was to battle corruption in Kenyan government. He went on record to say that if KANU and Moi would have done something about the deterioration of public life, corruption and mismanagement, he would stay with them and if they shrugged from their responsibilities, he would leave. The Safina party was routinely harassed and even its application to become an official political party was not approved until 1997. Although there was a serious worsening of his relationship with Moi, pressure by foreign donors led to Richard's brief return to the KWS (1998–99) and to a short stint as secretary to the cabinet (1999-2001). However, he quit all these posts and was dedicated to lecturing and writing on the conservation of wildlife and the environment. However, the wheels of tide changed radically. The new President Uhuru Kenyatta understood the dedication and love of Richard towards Kenyan wildlife conservation and brought him back as Chairman of the board of the Kenya Wildlife Service in 2015. But by that time elephant poaching had reached new levels. Although he was chairman rather than director, Richard played an active role in the formulation of the various policies of the Kenyan Wildlife Service.

In 2004 Richard founded Wildlife Direct, an Internet-based non-profit conservation organization designed to disseminate information about endangered species and to connect donors to conservation efforts. He also served as interim chair of the Kenya branch of Transparency International, a global coalition against corruption in 2007.

RICHARD AND HIS ASSOCIATION WITH STONY BROOK UNIVERSITY

In the mid 1990s, Stony Brook University was offering its next round of honorary degrees and Richard was at the top of the list. Being a world-famous anthropologist, he had been offered many honorary degree offers from prestigious universities. His inclination

was always to decline respectfully, and Stony Brook's offer almost shared the same fate, until Meave saw the letter. Meave encouraged Richard to accept the degree from an University that boasted of stalwarts such as primatologist and Distinguished Professor John Fleagle. Later on when former Stony Brook University President Shirley Strum Kenny learned that Richard had resigned during a turbulent time in Kenyan history, she feared for his safety and offered him the role of Visiting Professor of Anthropology. He accepted the position in 2002, but continued to live in Kenya but lecturing at Stony Brook.

THE TURKANA BASIN INSTITUTE

Subsequently Richard shared with Stony Brook University an idea he had for a long time: to build a permanent research facility in the Turkana Basin to assist scientists with the logistics of working in such a challenging, yet rewarding place. The then president of the University Samuel L. Stanley Jr. remarked that Richard continued to be at the forefront of some of the most important paleoanthropological discoveries. He went on to add that Richard's partnership with Stony Brook had created a truly unique center of global excellence that was excellently grounded in research and teaching, creating joint mission-driven projects in the developing world with the potential to be scaled globally. Stanley's advocacy was instrumental in the growth of the TBI. In 2013, the TBI International Advisory Board was established.

Richard returned the compliment when he remarked that it was only Stony Brook offered him shelter when he really needed it and that unlike many other universities, Stony Brook was excited about getting into an African country and doing something. In 2005, Stony Brook became the founding university partner of the TBI and construction of the institute commenced in Kenya. The TBI is now in its third phase of development, focused on enhancing connective infrastructure. During the first two phases building facilities were constructed on the east and west sides of Lake Turkana. The facilities are called TBI-Ileret and TBI-Turkwel, respectively. Each phase was supported entirely through private donations. The TBI provides the facilities and infrastructure needed for research projects not only in paleoanthropology, but also archaeology, zoology and biology, as well as interdisciplinary projects in areas such as water conservation and energy production. As Lawrence Martin said that the TBI takes care of infrastructure issues so that researchers could and be engrossed in research, rather than be worried of logistics. So once permanent infrastructure was built there, all kinds of interesting science began. Several major discoveries have been made at the TBI. Very recently Sonia Harmand and Jason Lewis of Stony Brook discovered earliest stone tools of humans dated 3.3 million years old in 2011 from Lomekwi. They published their findings in 2015 published

in *Nature*. The significance of the Lomekwi 3 tools lies in the fact that they pre-date what were once considered the oldest stone tools by about 700,000 years, a gap long enough to challenge our interpretation of human evolution. In 2011, the TBI started the Origins Field School, a semester-long program through which students earn either 15 upper-division undergraduate credits or 15 master's credits from Stony Brook University.

TAKE HOME MESSAGE TO THE STUDENTS

It is my sincere hope and belief that our young generation of anthropologists will take a leaf out of the works of this great personality and venture into research in human evolution. It is time that they stepped into the shoes of such legends so as to take the discipline of Anthropology truly forward. The students should feel the resilience in the life of Richard and in face of heavy odds, he has truly blossomed.

SOME IMPORTANT PAPERS OF RICHARD

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SOME IMPORTANT BOOKS OF RICHARD

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