

Obituary of Professor Yves Coppens (9 August 1934–22 July 2022)

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OBITUARY



Yves Coppens (© Brigitte Senut)

Professor Yves Coppens was a pioneer in African paleontology and was mainly known for his fieldwork in Chad and in the Horn of Africa in the East African Rift Valley, notably in the lower Omo valley, but also in the Afar. He devoted his life to research in Africa and the origins of humans. He was an “early scientist” as he was attracted in his youth by archaeology and other sciences investigating the past. During his childhood spent in Brittany, he used to look for remains of past life and megaliths; Gallo-Roman remains and stone tools held no secrets for him. He published his first paper in 1951 at the age of 17! Later, he was trained as a paleontologist at the Sorbonne University in Paris, and he joined Professor Jean Piveteau’s laboratory in 1956 as a CNRS researcher in this institution and a few months later Professor Jean-Pierre Lehman’s laboratory at the Muséum National d’Histoire Naturelle (MNHN) in Paris. In 1963, he was nominated Deputy Director of the Laboratory of Anthropology at the Musée de l’Homme

(which is the humanities department of the MNHN), and later on was elected Chair of Anthropology. This is when I met him as the supervisor of my Ph.D. in late 1975. In 1983, he joined the Collège de France as Chair of Palaeoanthropology and Prehistory, where he stayed until the end of his academic career.

In the late 1950’s, Professor René Lavocat (from the Ecole Pratique des Hautes Etudes) received some fossils that had been found in Chad by two hydrologists. He gave them to Coppens for study, who published them in 1959 with the two geologists. These fossils proved to be very interesting for understanding the correlations of the Villafranchian period in Africa. This is when he was invited to Chad where he began to survey the fossil deposits in 1960. These surveys led to the discovery of dozens of sites and the publications on fossil mammals including a monograph on fossil proboscideans. During his seven years (interrupted by his military duties) spent in Chad, a crushed



Yves Coppens (© Brigitte Senut)

skull was discovered, named *Tchadanthropus uxoris* (the status of which is still not settled).

During his time in the MNHN, he met Professor Camille Arambourg who considered him as his scientific heir. He then did research in Mauritania, North Africa, and particularly in Algeria, which proved to be very important for the knowledge of Paleolithic cultures. From Tunisia, he described in 1971 the famous suid, *Nyanzachoerus jaegeri*, from the upper Villafranchian (Plio-Pleistocene) site of Hamada Damous. It was the first time that the genus was described in the Maghreb, which permitted correlations with other sites in central and eastern Africa. But the decisive move was when Arambourg took him to the Omo River Valley in Ethiopia, where Arambourg had found several tons of fossils in 1932–1933 after the discovery of the sites by Du Bourg de Bozas in the early 1900's.

In 1967, Camille Arambourg, in collaboration with F. Clark Howell (University of California at Berkeley) and Louis Leakey (National Museum of Kenya), created the "International Omo Expedition" project, in which Yves Coppens was in charge of the French field team and remained so until 1976 (he became co-director with Howell after Leakey left the project and Arambourg's death). They organized the most exciting interdisciplinary venture in

science.

The stratigraphic sequence exposed in the Omo is one of the most famous and complete in Africa for the time period—spanning nearly 4 million years over a thickness of roughly 1200 meters. The different levels are from A (the oldest) to L (the youngest) and they overlie a basal level. It was in level G that in 1967, Arambourg and Coppens found a fragmentary mandible of a hominid that they named *Paraustralopithecus aethiopicus*.

His main focus in 1970 as a paleontologist for the Omo project was to define the first biostratigraphy of the Omo deposits, which provided crucial comparisons with the sediments in Northern Africa. This opus was published in 1972 in the *Comptes-rendus de l'Académie des Sciences, Paris*. This is the same year that the French geologist Maurice Taieb discovered the renowned fossil sites of the Hadar region, which led to the creation in the same year of "The International Afar Research Expedition," initially with four co-directors (Yves Coppens, Don Johanson, John Kalb and Maurice Taïeb), and later without Kalb. The AL 129-1 knee joint of an Australopithecine was found in 1973 and, the following year, the renowned skeleton of "Lucy," *Australopithecus afarensis*. It was probably the most prolific "modern" mission for ancient hominid remains.

Yves Coppens was a multi-skilled scientist like no other today; he was interested in fossil faunas, our ancestors, their cultures, their environments, and placing them into their chronological positions. He nominated two new Pliocene stages: the Lothagamian for the Lower Pliocene (now Upper Miocene, defined at the Lothagam site in Kenya) and the Shungurian for the Upper Pliocene (at the Shungura site in Ethiopia), which were published in the *Bulletin de la Société géologique de France* in 1978.

Coppens' interests in the culture of our ancestors led him to co-author with Jean Chavaillon an article on the stone tools from the Shungura Formation in the Omo Valley (2 to 3 Ma) and from Melka Kunturé. As noted above, he tried to place the ancestors in their chronological, cultural, and environmental contexts. He organized an international conference for the Singer-Polignac Foundation on the environments of early hominids and proposed, at the beginning of the 1980s, the stimulating «East Side Story» to explain how our close relatives, the African apes, and our early ancestors diverged. This theory was much richer than what is generally said and some aspects of it remain valid today. He suggested that our origins are to be sought in the Miocene and perhaps as early as 7 million years ago (in 1983, he pushed this date back to 10 million years). The (H)omo event (2.3 million years) that he proposed at the same time remains recognized as a solid hypothesis in the debate on the history of humans. Coppens is owed great credit for the discovery of hundreds of paleontological, prehistoric, and archaeological remains that have enriched world heritage, and which are published in hundreds of scientific articles.

The fame he received from the Ethiopian discoveries was a driving force in France for the disciplines of the past, which he widely promoted. Coppens was curious about science, its developments, new finds, and new techniques. He helped many young scientists in their research, promoting their careers, and, in an environment that was very male-orientated, he encouraged many female researchers.

I had the privilege of being his student and of sharing 47 years of my scientific career and friendship with Yves Coppens, who supervised my Ph.D. and my D.Sc. I was able to appreciate his caring and his open-mindedness. He never imposed his ideas on me or requested to be a co-author on my scientific papers (an unfortunate but fashionable practice today). He had the intelligence and honesty of a true researcher in science. That is probably why he was so popular with the public—the sincerity of his lectures and the real pleasure of disseminating his knowledge and his experiences were very much appreciated. He was an excellent storyteller who had the gift of communicating with a natural elegance.

His research was not limited to hominins or to Africa. At the end of the 1990s, coming back to his first love, proboscideans, he embarked on the adventure of the *Mammuthus* expedition led by Bernard Buigues, to the permafrost of Siberia, to meet mammoths.

Strongly involved in heritage conservation, Yves Coppens worked to safeguard world heritage and he was appointed in 2010 to the management of the Scientific Committee, for conservation and transmission work, of the Lascaux site, which he undertook until 2017. He was also engaged in environmental protection; he chaired the commission behind the Environmental Charter of the French Government.

Always ready to defend science, he responded to numerous requests.

Yves Coppens was a man of rare elegance, and his career was exceptionally rich. We have lost a great man. In a 2018 interview, he left us a message of optimism and humanism so necessary today: “Never be afraid of Science; Science is knowledge and knowledge is freedom.”

I lost a mentor, a colleague, a friend; it was a privilege to meet him. Many thanks, Monsieur, for this freedom, and for helping me to realize my dreams.