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In search of the beginnings of our culture

How did we become the humans we are today? When and where can we grasp the beginnings of our human existence for the first time? To find answers, let us shed light on the development of humankind in Africa between 3.3 and 1 million years ago. Two important physical changes had already developed in human-like species: an upright, bipedal locomotion and the resulting free hands. The construction of the hand, with short fingers and opposable thumbs, was ideally suited for handling various materials, objects, and tools. Today's great apes (chimpanzees, bonobos, orangutans, and gorillas) are also adept at manipulating their environment; that is probably part of our primate inheritance. Another part of this legacy is a long childhood with parents, aunts, uncles, family: an ideal breeding ground for social learning and culture. In the period between 3.3 and 1 million years ago, humans developed new ways to access their environment based on this heritage, which has had a lasting impact on their development to this day. Looking at this long history, it becomes clear how many different changes over the course of millions of years have contributed to making us the culturally diverse species that populate the entire planet today.

In addition to fossil skeletal remains, tools primarily shape our view of human developmental history. We often do not know which hominin form was responsible for individual archeological remains and thus for indications of certain behavior. Therefore, the following description of the developmental changes only provides a rough outline, without assigning the individual phases to specific hominin forms.

1 Human ancestral gallery. From top left to bottom right: *Sahelanthropus tchadensis, Australopithecus anamensis, Kenyanthropus platyops, Australopithecus afarensis, Australopithecus africanus, Paranthropus boisei, Homo rudolfensis, Homo habilis, Homo erectus,* Neanderthal.

The first indications of the use of tools that is beyond the evidence known from great apes, date to the time a little over three million years ago. Tools were used to process stones at the Lomekwi site on Lake Turkana in Kenya. The resulting sharp edges made it easier to detach and cut up many things. The relationships with other species changed because of the resulting opportunities to procure plant and animal food. For example, hominins were now able to better compete with predators for parts of their prey. The proportion of animal food—in addition to meat, also the high-energy marrow from broken bones—increased. By using tools for various purposes, humans soon were able to assume a new unique position among carnivores as well as herbivores. They became real omnivores that could easily adapt depending on the situation.

Over time, we find evidence of an increased technical understanding both in the selection of raw materials and in the controlled processing of tools. Around 2.3 million years ago, hominins in Kenya were able to deliberately knap several dozen flakes from a single stone core. In the so-called Oldowan, they literally had the difficult-to-work material in hand. With these new capabilities as part of their skillset, humans first set foot in areas outside of Africa more than two million years ago. Around 1.8 million years ago, humans developed a new form of stone processing. In addition to manufacturing sharp-edged stone fragments, they started to rework the blanks into increasingly symmetrically and flat heavy-duty tools. Various new types of tools were created that were just as suitable for cutting up animal carcasses as for processing wood and other plant materials. Handaxes and other Acheulean tools played an important role for over 1.4 million years. And during this time humans also developed an ever-closer relationship with fire, the increasing use of which once again greatly changed their relationship with their environment.

To manufacture and use stone tools (or any other tools), humans had to learn many skills and acquire new knowledge: which raw material was suitable and where could it be found, what properties did a good hammerstone possess, how does one prepare a core to knap off a specific flake, which tool is best used for what purpose. None of these things were invented by one individual on their own. In a group, existing tools could be tried out for different tasks, existing methods were adopted and activities participated in, experienced users could set an example for others or intervene to help when needed. More complex actions became conceivable by breaking them down into modules. The special role of humans among the animals of the African savannah was shaped by their diverse and flexible integration into this environment as well as by their intensive social behavior, linked to an increased ability to learn. Growing group sizes and a closer community expanded the opportunities for learning in the social environment. Social togetherness became more diverse. The elders were not only role models in their actions but began to motivate, reinforce, and correct

the inexperienced. In this way, more difficult things could be learned, and lengthy learning processes could be endured. Increasing social interaction required and enabled broader communication through gestures, facial expressions, and vocalizations. In a process that has lasted millions of years, the human ability to speak emerged slowly and with it the gift of not only passively demonstrating learning paths but also actively guiding them. Humans became cooperating partners, storytellers, and teachers.

But where is the culture? Is culture the combination of traditions and ideas? Is it a certain way of combining and maintaining skills and knowledge? Or does culture already begin with simple processes that are repeated in the group? Can we already speak of culture when monkeys manufacture and use simple tools to fish for termites or crack nuts? Where is the boundary between habit, tradition, and culture, or does it not exist at all? Cultural skills play an important

2 An excerpt of the universe of early human culture. The recovered stone tools and bones from prey animals only scratch the surface. Many different factors as well as social and material development processes were involved in dealing with the environment.

role in the formation of the genus *Homo* and the development of their environmental relationships. We can assume that all prehistoric and early humans of the last 3.5 million years possessed cultural abilities to different extents which manifested themselves in different forms of behavior.

Culture begins well before art, music, religion, and philosophy. It is not the product of an action that is endowed with special properties, but the doing itself. Cultural behavior (performance) is characterized by the development within the social environment and its relative durability. Culture is a socially learned practice in dealing with oneself, with one another, and with the environment that is communicated over generations. It is made up of many individual performances — actions and habitus. Culture is not something aloof but permeates everyday life. Humans have been cultural beings for millions of years, and they have evolved through and with culture.

Let us now look back at the beginnings of human culture, as much as we can grasp today, to discover some of the early key points on our developmental path.

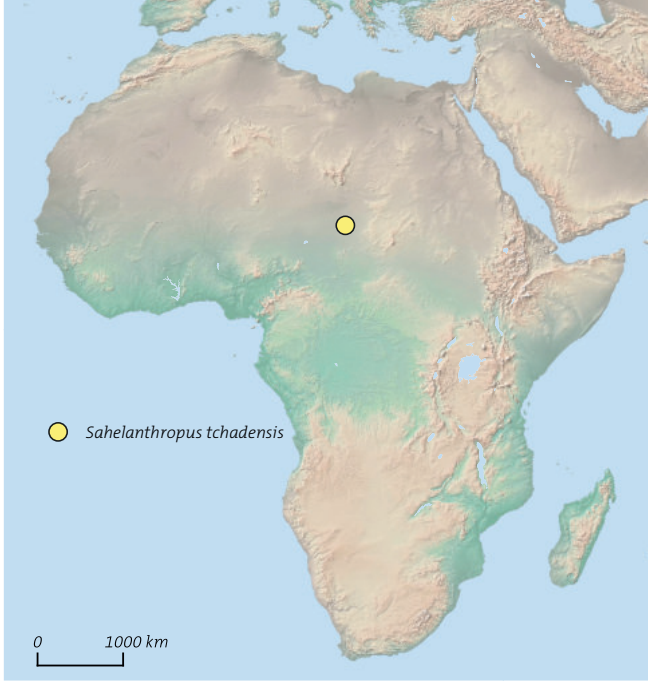
Further Reading

Haidle, M. N./Hertler, C. 2021 KULT-UR-MENSCH. Kulturkonzepte für die Erforschung der Menschwerdung. ROCEEH Communications 1 (Heidelberg 2021).

Hörning, K. H./Reuter, J. 2004 Doing Culture: Kultur als Praxis. In: K. H. Hörning/J. Reuter (Hg.), Doing Culture. Neue Positionen zum Verhältnis von Kultur und sozialer Praxis. (Bielefeld 2004) 9 – 15.

Sahelanthropus tchadensis

Profile



Discovery

In 2001, Ahounta Djimdoumalbaye discovered an almost completely preserved, yet heavily fragmented skull in the Djurab Desert (Chad).

Sites

Chad: Djurab Desert, Toros Menalla.

Finds

Skull without the lower jaw bow, four lower jaw bone fragments, and four isolated teeth. The fossils are all heavily damaged.

Age

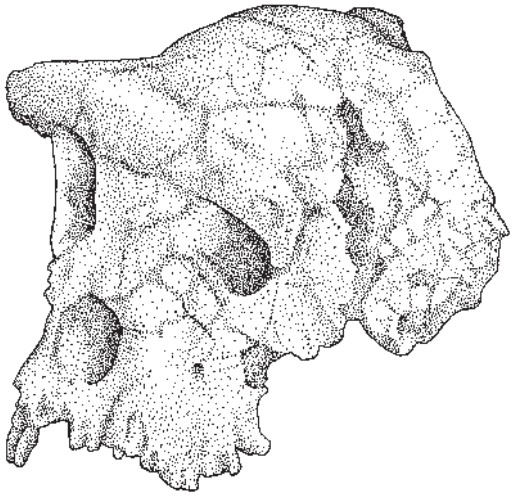
circa 7 million years.

Brain size

360–370 cm^3.

Characteristics

Sahelanthropus tchadensis probably lived in grass and forest landscapes and presumably ate mainly leaves, roots, and tubers. It is probable that they also ate large insects and small vertebrates when food was scarce. It is unclear whether the species was already permanently bipedal.



Skull from Toros-Menalla, Djurab Desert, Chad

Facial reconstruction