

**A Photo Compendium of the 36 Hominid Skulls
in the Naturalist Center**

By Charles J Vella, PhD, 2022

There are 18 Hominin skulls in the Human Odyssey Collection on the 1st floor.

The following is a photographic compendium of the 36 Hominid skulls in the “anthro” cabinet in the Naturalist Center on the 3rd floor. There are 5 duplicates.

This collection contains the following hominids by approximate origin dates:

- 1 *Pan troglodytes* / Chimpanzee
- 2 *Sahelanthropus tchadensis*
- 3 *Ardipithecus ramidus* / Ardi
- 4 *Australopithecus afarensis*/ AL 444-2
- 5 *Australopithecus afarensis* / Lucy
- 6 *Australopithecus afarensis* / Selam, Dikika
- 7 *Austroithicus africanus* /"Taung Child
- 8 *Australopithecus africanus* / Mrs. Ples
- 9 *Australopithecus africanus* / Mrs. Ples – duplicate
- 10 *Paranthropus aethiopicus* / The Black Skull
- 11 *Paranthropus robustus*
- 12 *Paranthropus robustus*
- 13 *Paranthropus boisei* / type specimen
- 14 *Paranthropus boisei* / mandible
- 15 *Paranthropus boisei*
- 16 *Paranthropus boisei*

- 17 *Homo rudolfensis*
- 18 *Homo habilis* / "Cinderella"
- 19 *Homo habilis* foot
- 20 *Homo rudolfensis*
- 21 *Homo ergaster* / KNM-ER 3733
- 22 *Homo erectus* / Chellean Man
- 23 *Homo erectus* / Chellean Man – duplicate
- 24 *Homo erectus* / Peking Man
- 25 *Homo erectus* / Peking Man - duplicate
- 26 *Homo heidelbergensis* / "Rhodesian Man"/Broken Hill/Kabwe
- 27 *Homo heidelbergensis* - duplicate
- 28 *Homo heidelbergensis* - 2nd duplicate
- 29 *Homo neanderthalensis* / Old Man of La Chapelle Skull
- 30 *Homo floresiensis* / The Hobbit
- 31 *Homo sapiens* / Omo 1
- 32 *Homo sapiens* / Skhül V
- 33 *Homo sapiens* / Cro Magnon 1
- 34 *Homo sapiens* / Cro Magnon
- 35 *Homo sapiens* / Modern Human skull
- 36 *Homo sapiens* / Trephined skull
- 37 *Homo sapiens* / Modern Human skull
- 38 *Homo sapiens* / femur
- 39 *Homo sapiens* / hand
- 40 *Ardipithecus ramidus* / hand
- 41 Modern Human Dental Mold
- 42 *Cebus Olivaceus* / Weeping Capuchin

1 Pan troglodytes

Chimpanzee

Discovery: Oldest fossil found by Sally McBrearty in 2004. Kenya

Habitat: Forests and savannas

Lived: 780,000 years ago, to present day

Notes:

-Chimps likely split from a common ancestor with humans between 6-7 million years ago.

-Except for 5 teeth, no chimpanzee ancestor fossils have been found, likely due to adverse settings for fossilisation. Rain forest soil is acidic.





2 Sahelanthropus tchadensis

Date: 6-7 Ma

Debate: Hominid or hominin?

Latest research: not bipedal





3 *Ardipithecus ramidus* ***Ardi***

Date: 4.4 Ma.

Discovered by Tim White and associates in 1994 in the Afar region of Ethiopia. The partial skeleton ARA-VP-6/500 is now considered by many to be the oldest skeleton of a supposed human ancestor. Characteristics of the skeleton suggest that the species moved in the trees on all fours (on palms rather than knuckles) but also was able to walk bipedally.





4 Australopithecus afarensis, **AL 444-2**

Discovery: Yoel Rak in 1992. Hadar, Ethiopia; a male

Habitat: Woodlands

Lived: 3 million years ago

Notes:

-Found in the same location as "Lucy."

-This skull, larger than Lucy's and other skulls, tells us there were significant size differences between the sexes of this species.





5 *Australopithecus afarensis* **Lucy**

Date: 3.2 MYA.

A.L. 288-1 was discovered by Don Johanson in 1974 in Hadar, Ethiopia. The jaw shares features of both apes and other early hominins. Although the brain was relatively small, skeletal evidence indicates that "Lucy" walked upright, supporting the idea that bipedalism preceded the development of a large brain.







6 *Australopithecus afarensis*
Selam, Dikika

Date 3.3 Ma







Australopithecus africanus

"Taung Child"

Discovery: Raymond Dart, in 1924. Taung, South Africa

Habitat: Woodlands and savannas

Lived: 2.8 million years ago

Notes:

- Skull of a 3-year-old child.
- The first molars are only beginning to erupt.
- Puncture marks around the eye sockets indicate that an eagle killed the child with its talons and beak.





8 *Australopithecus africanus*

Mrs. Ples

Date: 3.1 Ma



**9 *Australopithecus africanus*,
Mrs. Ples - Duplicate**



10 Paranthropus aethiopicus

The Black Skull

Discovery: Alan Walker in 1985. West Turkana, Kenya

Habitat: Savannas

Lived: 2.5 million years ago

Notes:

- Color comes from fossilization, absorbing manganese-rich minerals.
- Has the largest sagittal crest of any early human,
- indicates massive chewing muscles.





11 Paranthropus robustus

Discovery: *Fourie, a local quarryman, in 1950. Swartkrans, South Africa*

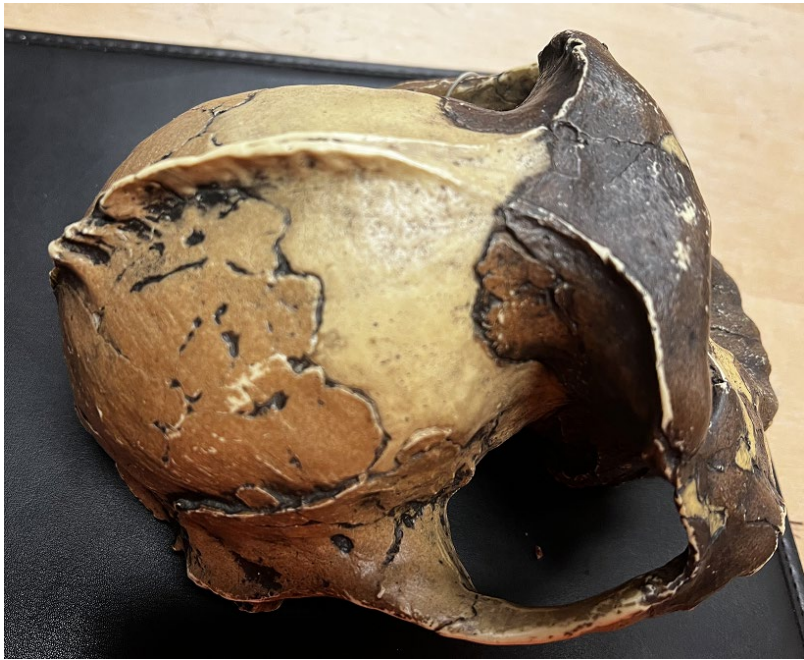
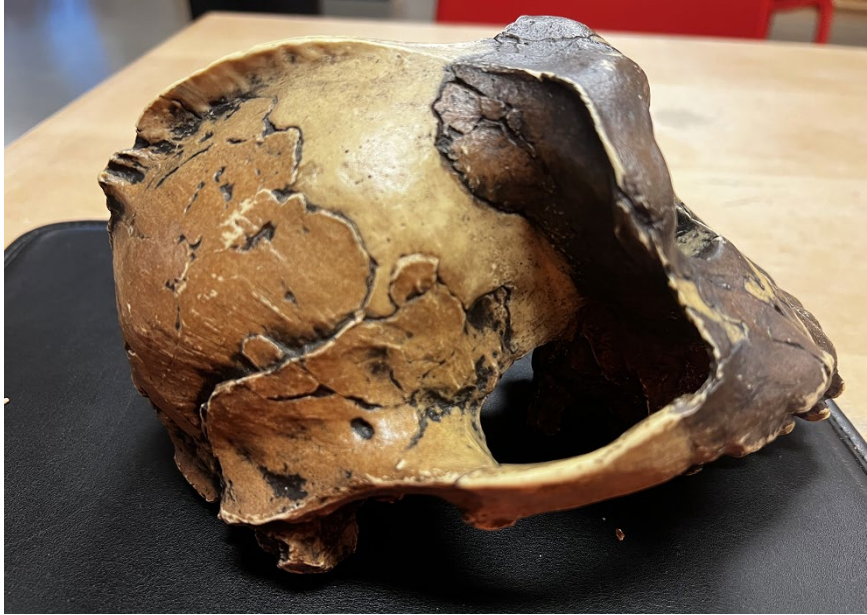
Habitat: Dry open savannas

Lived: 1.8 - 1.5 *million years ago*

Notes:

- Small sagittal crest suggests it's female.
- Massive molars and premolars imply the grinding of tough foods.
- Teeth used to determine that this was an adult.
- All three molars had erupted prior to death





12 Paranthropus robustus

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Notes:

- Small sagittal crest *suggests* it's female.
- Massive molars and premolars imply the 'grinding of tough foods.
- Teeth used to determine that this was an adult.
- All three molars had erupted prior to death.





13 Paranthropus boisei

Type specimen

Discovery: Mary Leakey in 1959.

Olduvai Gorge, Tanzania

Habitat: Woodland Savannas

Lived: 1.8 million years ago

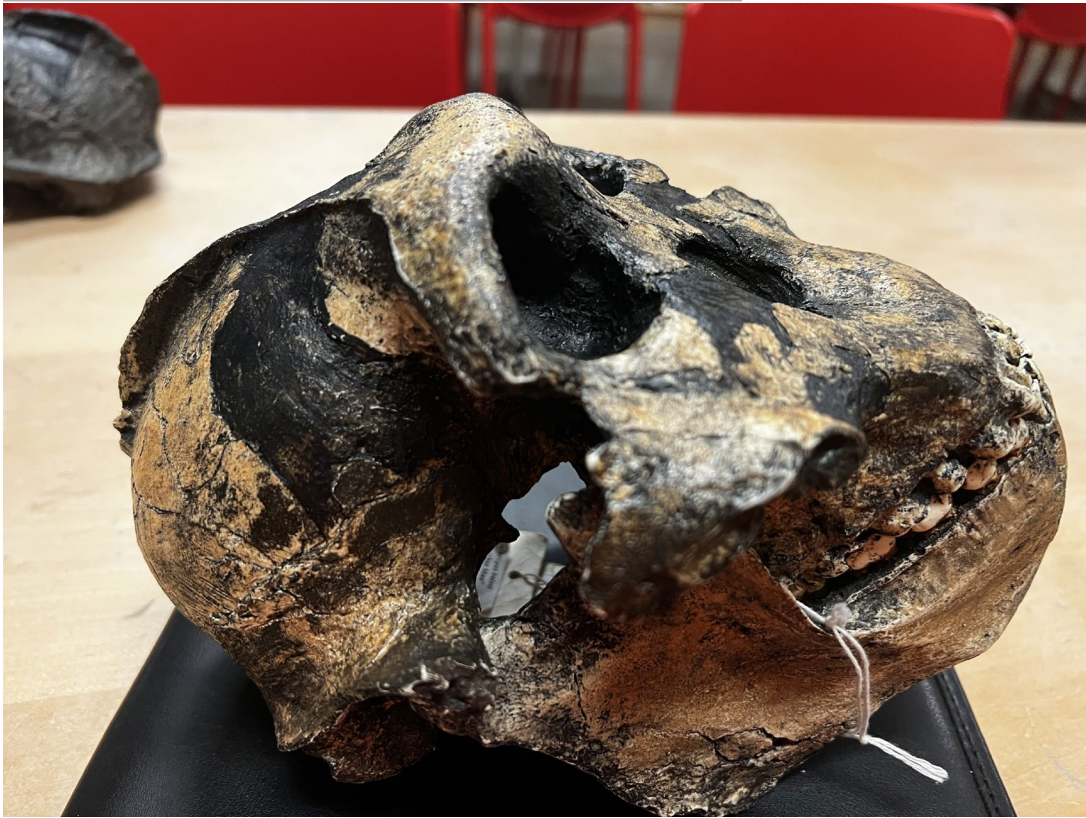
-Enamel and teeth, 4x larger than ours.

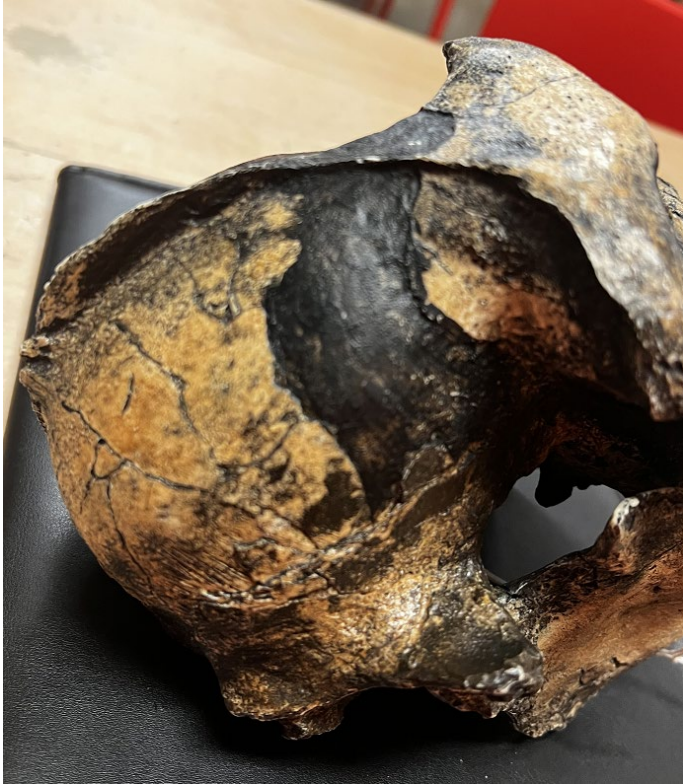
-Large sagittal crest attach to temporalis (chewing) muscles.

-Muscles force cheekbones forward creating dish-shaped *face*.

-“*Nutcracker Man*” designation was inaccurate









14 *Paranthropus boisei* Mandible





15 *Paranthropus boisei*



16 *Paranthropus boisei*

Discovery: Richard Leakey and H. Mutua in 1969. Koobi Fora, Kenya

Habitat: Woodland **Savannas**

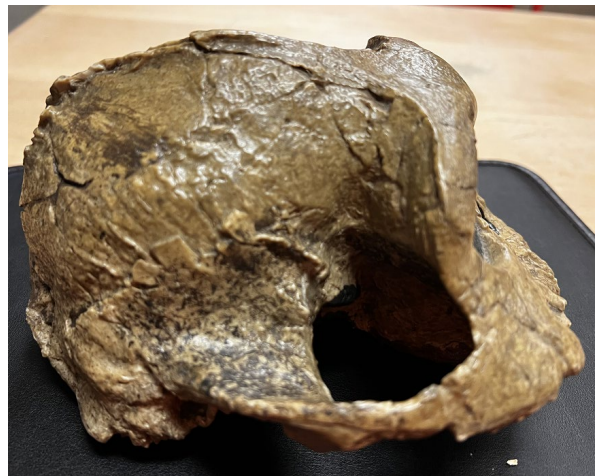
Lived: 1.7 million years ago

Notes:

-Named for Charles Boise.

-Flaring Zygomatic arches and large muscle contacts are typical of the genus.

-Cranial capacity of this specimen estimated to about 510 cubic centimeters, larger than a chimpanzee.



17 Homo rudolfensis

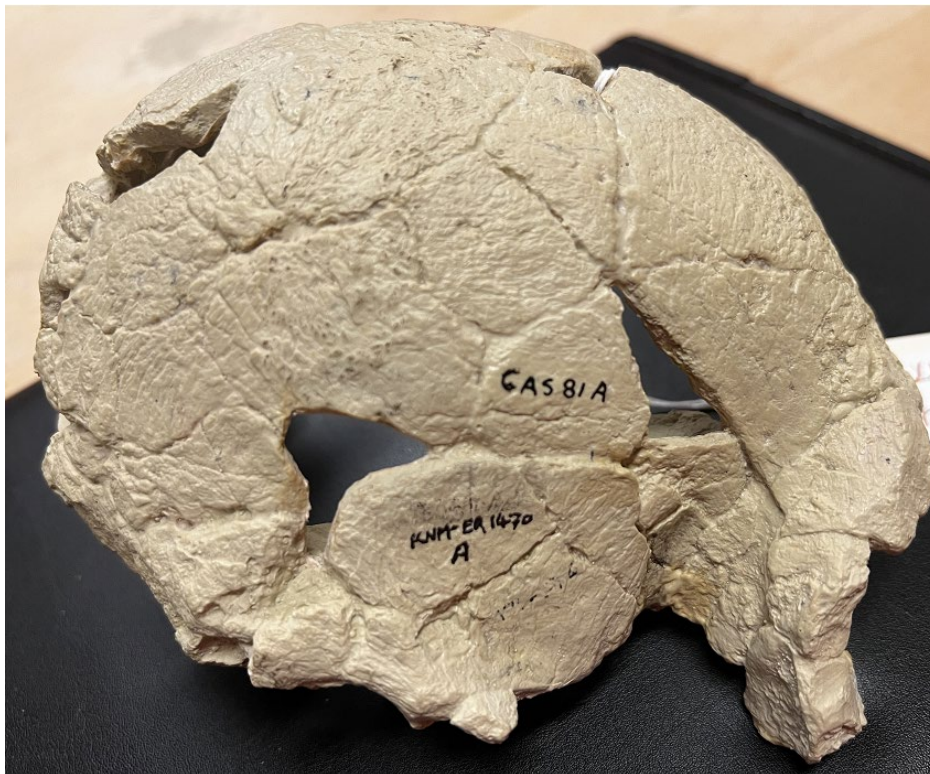
Discovery: Bernard Ngeneo in 1972. Koobi Fora, East Rudolph, Kenya

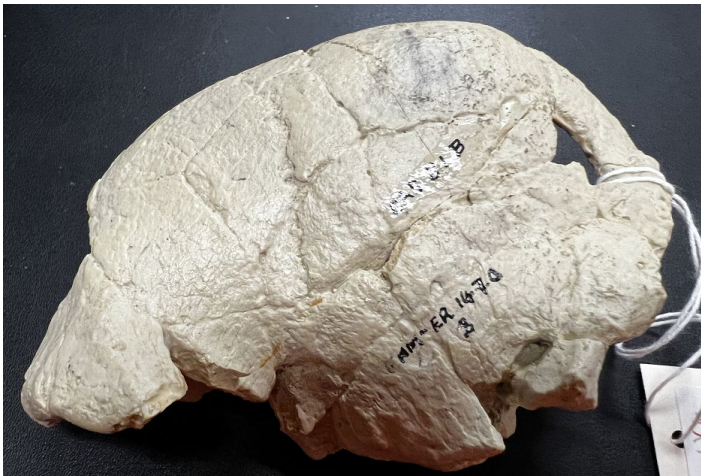
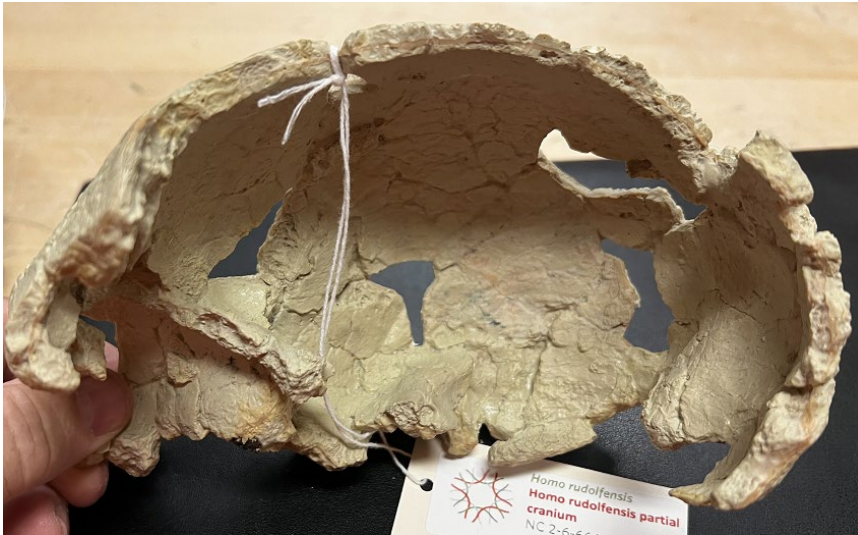
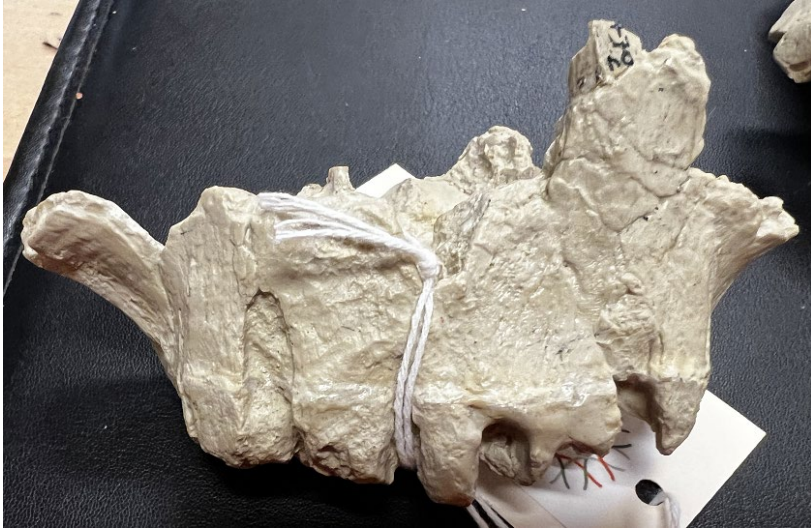
Habitat: Dry savannas

Lived: 1.9 million years ago

Notes:

- Lived alongside, and looks very similar to, *H. habilis* .
- Larger crania! capacity and teeth distinguish it from *H. habilis*, both being much too large to fit within acceptable limits of Variation.





18 Homo habilis

“Cinderella”

Discovery: J. Mbuika in 1963. Olduvai Gorge, *Tanzania*

Habitat: Woodlands

Lived: 1.6 million years ago

Notes:

- Likely the remains of an adolescent female.
- Found in fragmented pieces with an arm bone.
- Artifacts found near the bones suggest *H. habilis* made tools, built homes, and hunted & gathered.





19 *Homo habilis* foot



20 *Homo rudolfensis*

Discovery: Bernard Ngeneo in 1972. Koobi Fora, East Rudolph, Kenya

Habitat: Dry savannas

Lived: 1.9 million years ago

Notes:

-Lived alongside, and looks very similar to, *H. habilis*.

-Larger cranial capacity and teeth distinguish it from *H. habilis*, both being much too large to fit within acceptable limits of variation.





21 *Homo ergaster*

KNM-ER 3733

Discovery: Bernard Ngeneo in 1975. Koobi Fora, Kenya

Habitat: Occupied diverse habitats.

Lived: 1.8 million years ago

Notes:

-Facial features, cranial sutures, and teeth wear suggest this is a mature female.

-Some consider this to be a *H. erectus* rather than a distinct species.

-Of great significance is the fact that this skull was found in the same sediment layer that *P. boisei* KNM-ER 406 had been six years earlier. This discovery put to rest the single species hypothesis, the notion that only one hominin species existed at any point in history.



22 Homo erectus **Chellean Man**

Cast of “Chellean Man”, Olduvai Hominid number 9 (OH 9), a skull discovered in Tanzania in Olduvai Gorge,
Date: 1.5 Ma



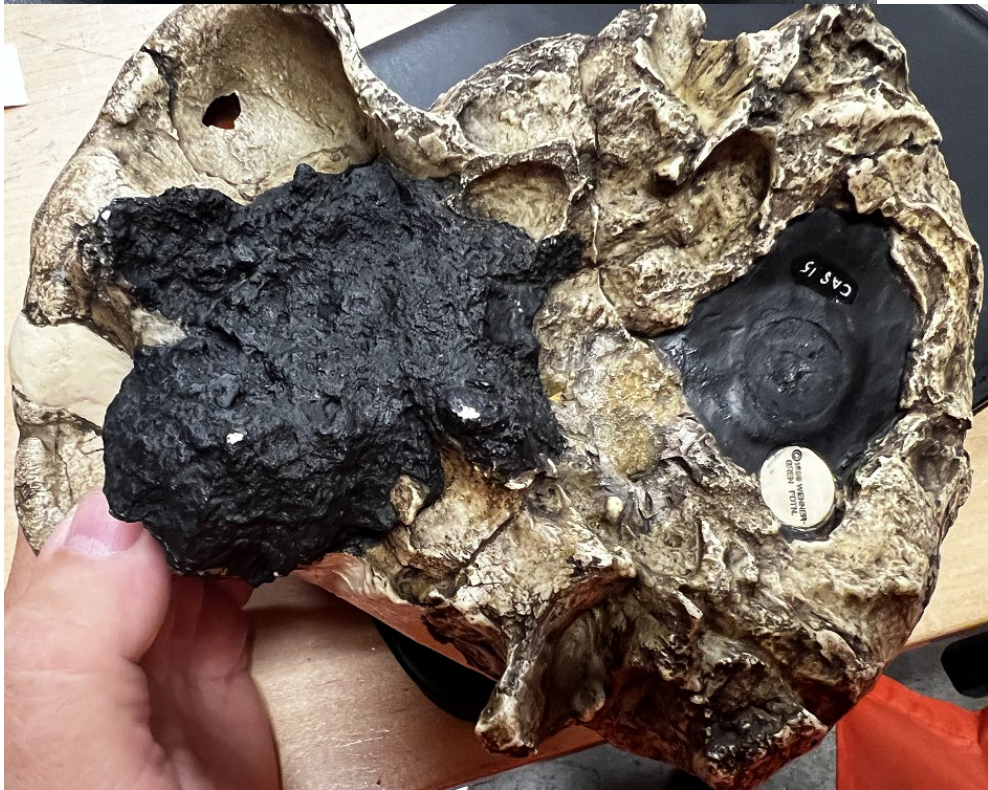




23 *Homo erectus*
“Chellean Man” – a duplicate







24 *Homo erectus*

"Peking Man"

Discovery: Otto Zdansky in 1921.

Location: Zhoukoudian, China

Habitat: Occupied diverse habitats

Lived: 500,000- 300,000 years ago

Notes.

-He is a composite reconstruction of bones from four individuals.

-Distinctive features include a large supraorbital torus and sagittal keeling (top of cranium).





... sample
... date
... 500,000 -
... 200 years ago
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**25 *Homo erectus*
Peking Man**

Cast of Peking Man (female) cranium, found in Zhoukoudian cave, China.

- 300-500 kya.
- found with ash, burnt and charred bone, stone, and seed





26 Homo heidelbergensis

"Rhodesian Man"/Broken Hill/Kabwe

Discovery: Tom Zwiglaar in 1921. Kabwe, Zambia

Habitat: Cold, dry climates throughout Sub-Saharan Africa

Lived: 300,000 years ago

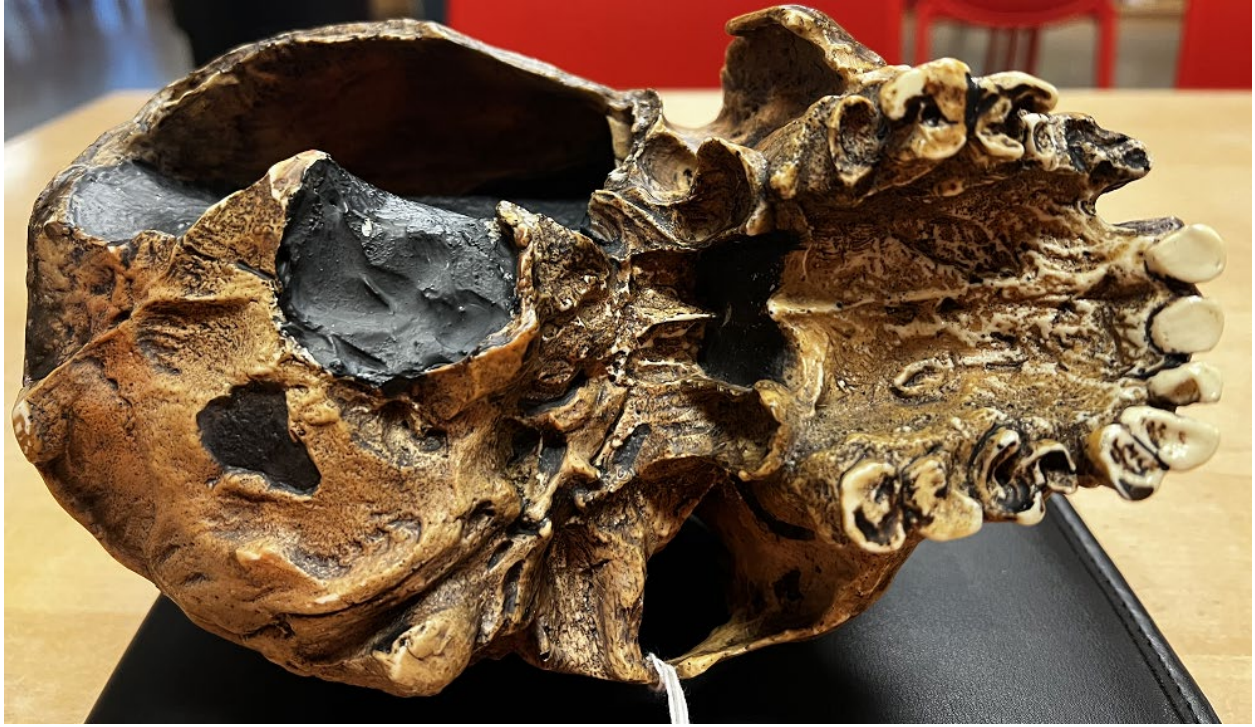
Notes:

-This skull was the first early human fossil to be found in Africa.

-Also, the first to show evidence of cavities with 10 on the upper teeth.







27 *Homo heidelbergensis*

"Rhodesian Man" - Duplicate

Discovery: Tom Zwiglaar in 1921. Kabwe. Zambia

Habitat: Cold, dry climates throughout Sub-Saharan Africa

Lived: 300,000 years ago

Notes:

-This skull was the first early human fossil to be found in Africa.

-Also, the first to show evidence of cavities with 10 on the upper teeth.

-Was initially considered, incorrectly, to have lived only 40,000 YA.

It is the first human ancestor to be found in Africa. The skull shares features of both *Homo erectus* (heavy browridges) and *Homo sapiens* (flatter face, large brain (1300 cc))





28 *Homo heidelbergensis*
"Rhodesian Man" – 2nd Duplicate



29 *Homo neanderthalensis*

Old Man of La Chapelle Skull





30 Homo floresiensis / "Hobbit"

Discovery: P. Brown, Wahyu Saptomo, Benjamin Tarus, Thomas Sutikna, Rokus, Michael Morwood, Due Awe, and Raden Soejono in 2003. In Flores, Indonesia

Habitat: Heavily forested tropical islands

Lived: 600 to 60 Ka

Notes:

- This adult female died around age 30.
- Stood about 1m tall. -Chimp-sized brain.
- Skull found with nearly complete skeleton.
- That this specimen, standing about 3.3 feet tall and having a magnificently small brain capacity (380 cc), was in existence only 50,000 YA could be one of the most important discoveries in decades. Much debate centers around whether it evolved from a small, bodied hominin that left Africa or a large-bodied hominin (*H. erectus*) who experienced island dwarfism.





31 Homo sapiens

CJV: Poor reconstruction of Omo 1

Discovery: Oldest fossils found by Frank Brown in 1967. Kibish, Ethiopia

Habitat: Evolved in Africa, now worldwide

Lived: 195,000 years ago, to present day

Notes:

- Skulls have sutures that outline bones that make up the cranium.
- These lines can help indicate age at death.
- Humans have a considerable range in brain size





32 *Homo sapiens* **"Skhül V"**

Discovery: Theodore McCown and Hallam L. Movius, Jr. in 1932.
Mount Carmel, Israel

Habitat: Evolved in Africa, now worldwide

Lived: 90,000 years ago

Notes:

-Discovered along with nine other skeletons.

-Has some primitive traits like occipital bun and large brow ridges.
Like modern humans, this has a high, vertical forehead and a rounded skull.





33 *Homo sapiens*

"Cro-Magnon 1"

Discovery: Louis Lartet in 1868. Cro-Magnon, France

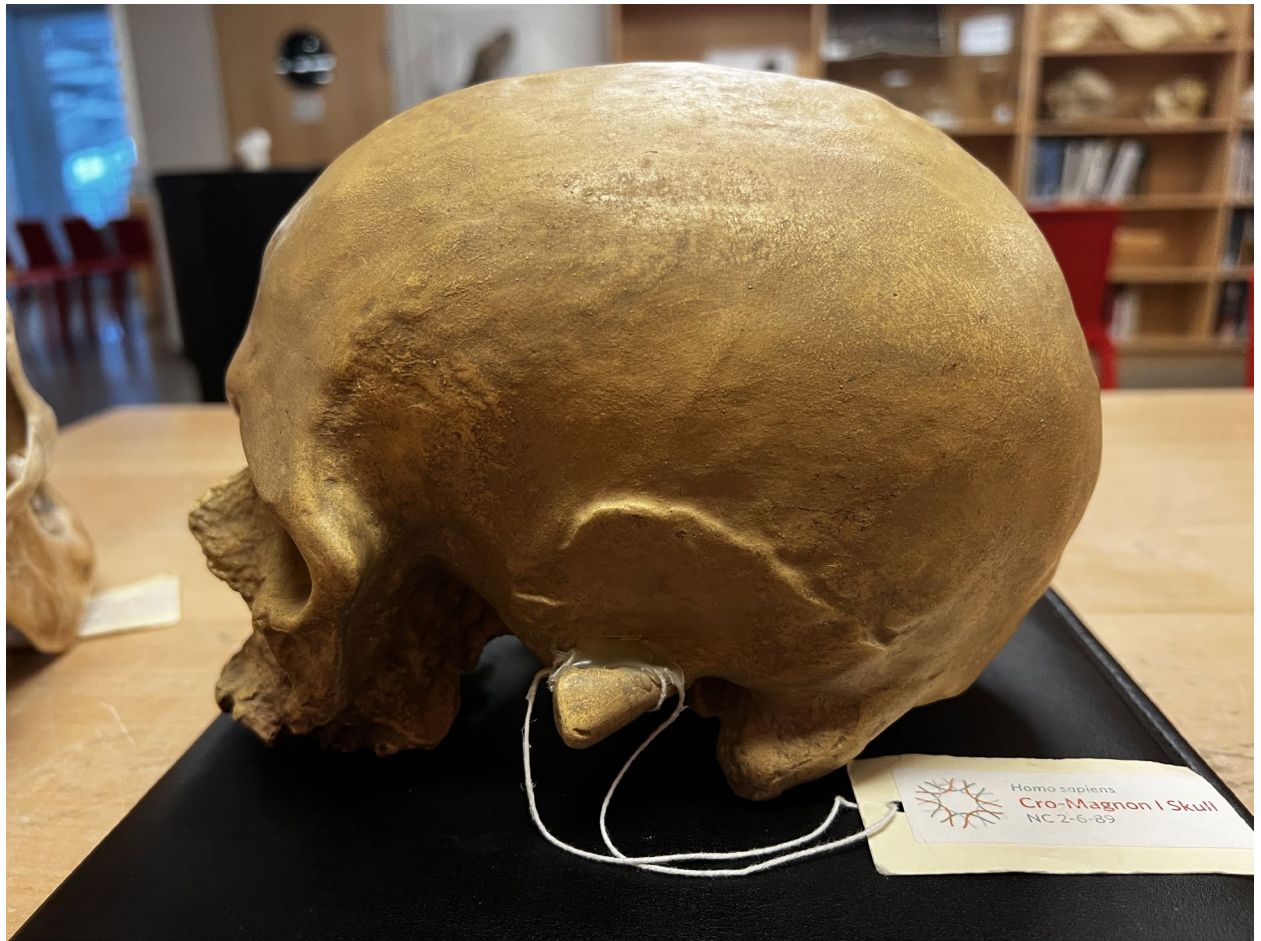
Habitat: Evolved in Africa, now worldwide

Lived: 30,000 years ago

Notes:

- Discovered next to three other adult skeletons and one infant.
- Likely buried intentionally with ornaments found with them.
- Group support evident.
- Pitting seen on the forehead results from a fungal infection.





34 *Homo sapiens* CRO-MAGNON

Cast from an original skull.

Discovered in 1998 in river deposits in Germany,

Since it was dredged from a gravel pit *the stratum* can only be assumed.

however, the association with *Equis Mammuthus*, *Megaceros* and , as well as the state of *mineralization*, suggests an at least 10,000 to 30,000 Years





Skull
agnon Skull

35 Homo sapiens **Modern Human skull**

Discovery: oldest fossils found by Frank Brown in 1967, Kibish, Ethiopia

Habitat: evolved in Africa, now worldwide

Lived: 195,000 to present day to present day

-Skulls have sutures that outline bones that makeup the cranium.

-These lines can help indicate age at death.

-Humans have a considerable range in brain size, -
having **nothing to** do with intelligence





dhr

36 Homo sapiens Human Trephined Skull

This female skull from the Tuanacén tribe in Bolivia, reported to be 1200 years old and was acquired in 1986. This particular skull is not only trephined, but elongated, from the practice of wrapping the head of young females. The skull is unusual as the trephination was done by scraping the bone until the brain was exposed.

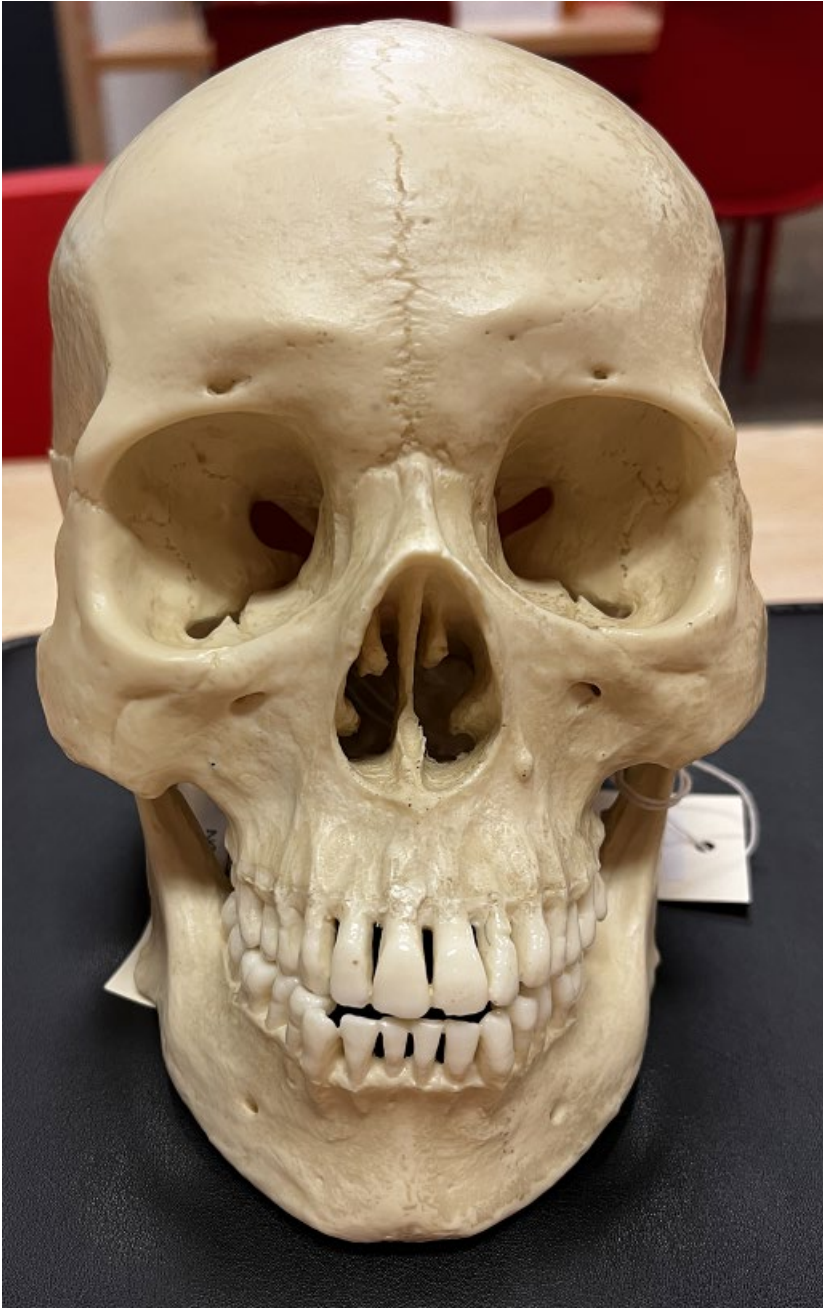
The patient clearly lived on as the bone shows healing. According to the literature at the University of Iowa dated circa 1860, "trephining is a surgical operation that involves cutting out small, button-shaped piece of the skull. The operation is done with an instrument called a trephine. The procedure is used in the treatment of certain head injuries. It relieves pressure on the brain caused by bleeding between the skull and brain. Also used to remove blood clots and to gain entry to the brain for other such procedures; trephining is the earliest known surgical treatment."







37 Homo sapiens





38 *Homo sapiens* femur



Delete



39 *Homo sapiens* hand



40 Ardipithecus ramidus

Hand

Discovery: Tim White in 1994. Aramis, Ethiopia

Habitat: River-margin forests and savannas

Lived: 4 million years ago

Notes:

- This fossil hand has many implications for understanding the evolution of bipedalism.
- It implies maneuverability in trees, and a likelihood of ability to walk upright before leaving the trees.
- It likely moved through trees on all fours, grasping the branch below

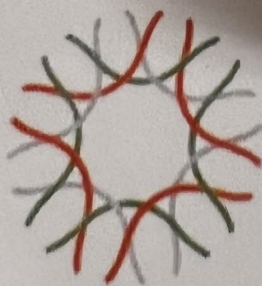
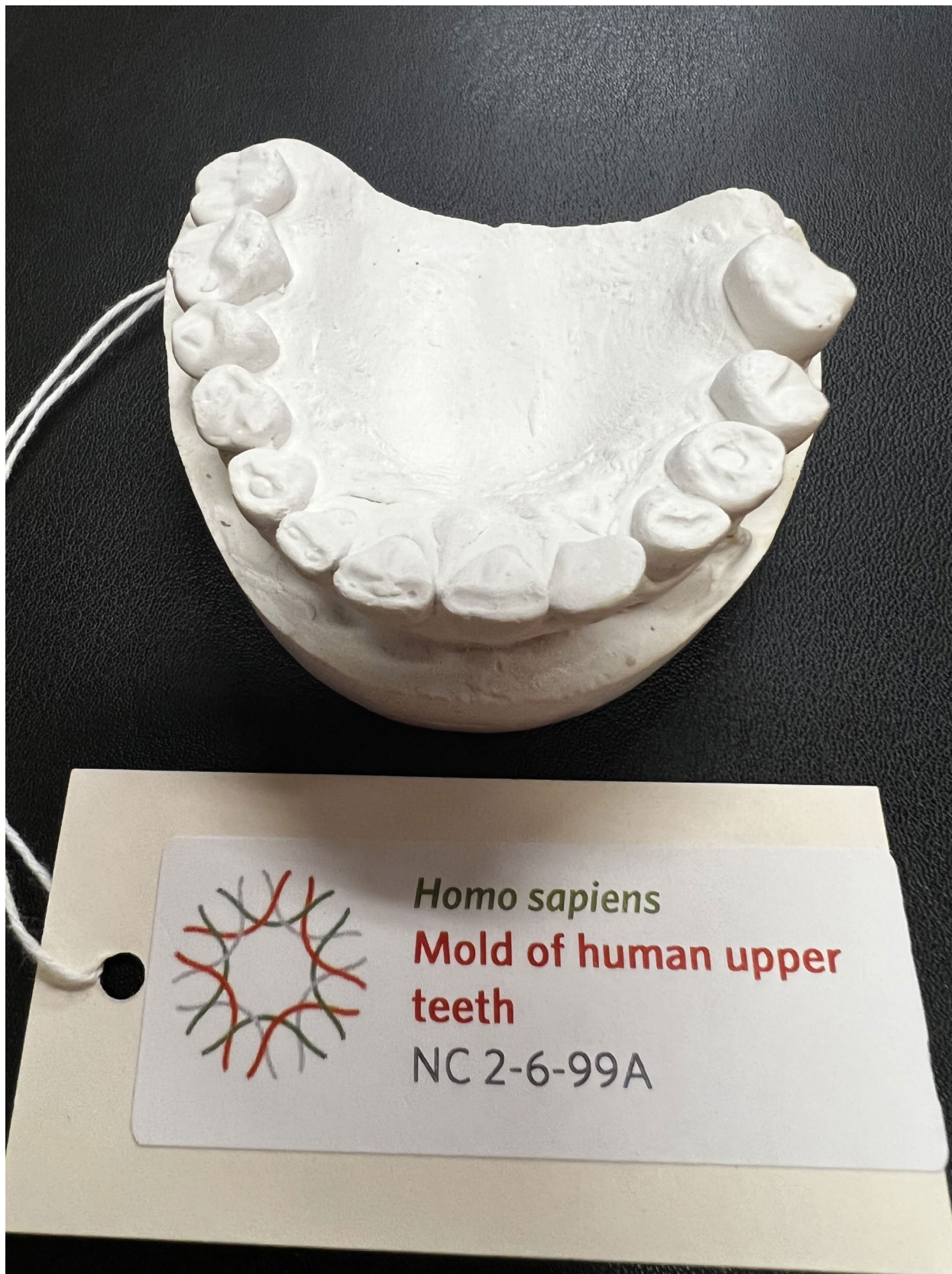




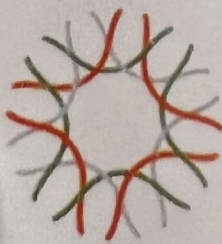


41 Modern Human Dental Mold





Homo sapiens
**Mold of human upper
teeth**
NC 2-6-99A



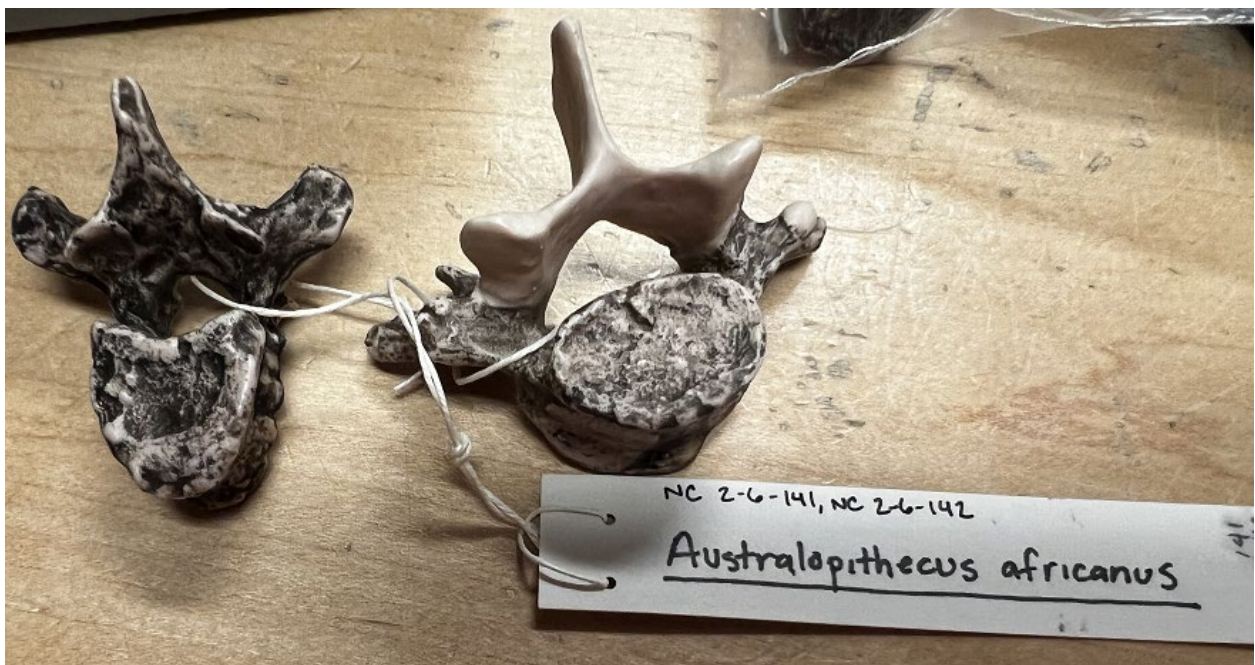
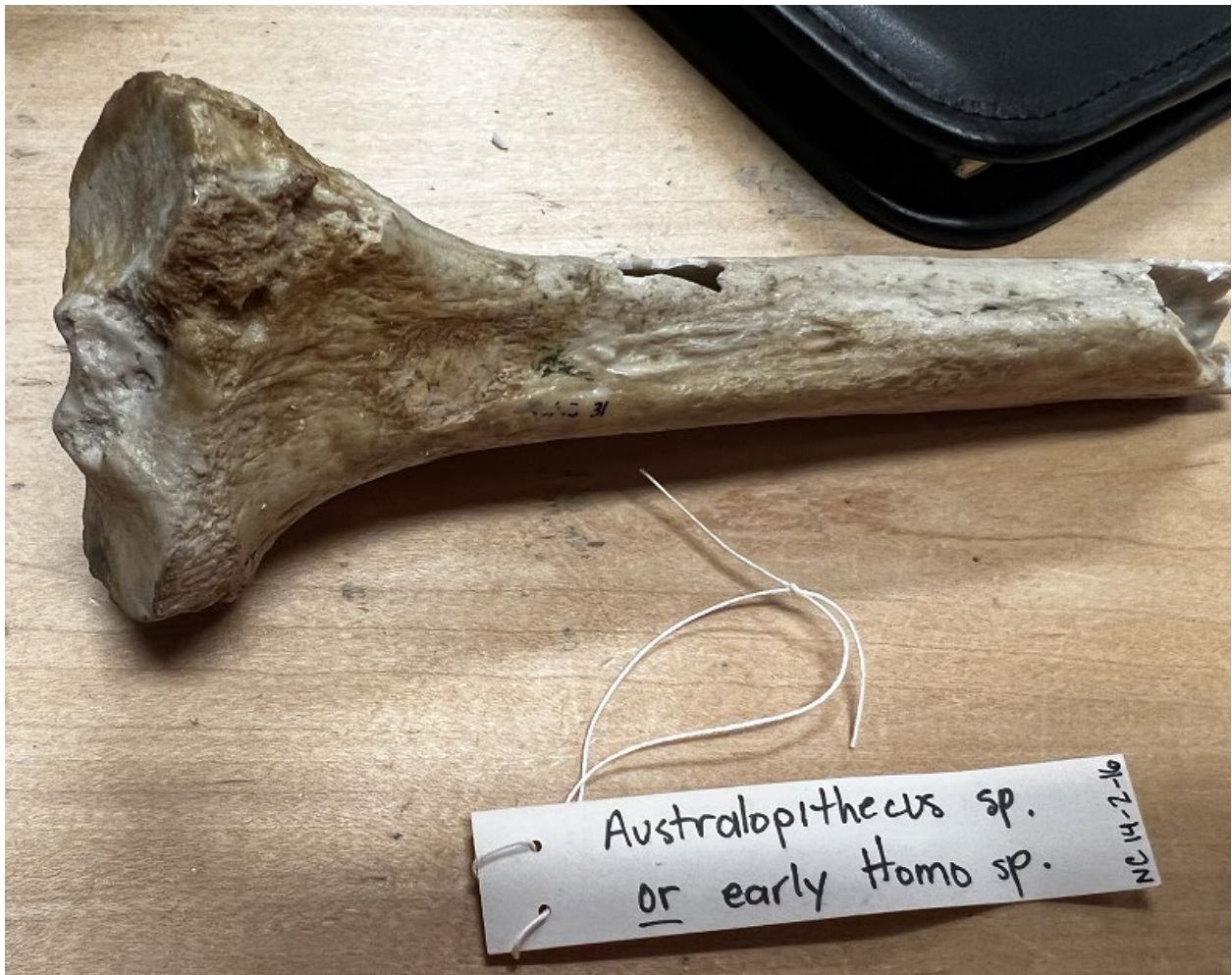
Homo sapiens
**Mold of human lower
teeth**

NC 2-6-99B

42 *Cebus Olivaceus*
Weeping Capuchin skull









Australopithecus spp.
Australopithecus spp.
humerus fragment
NC 2-6-85