

Human evolution

Patterns of evolution

Our recent history

Sociality

Learning about the past

Outline

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Context for evolution

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Primates

Apes

Hominins

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Humans as an example

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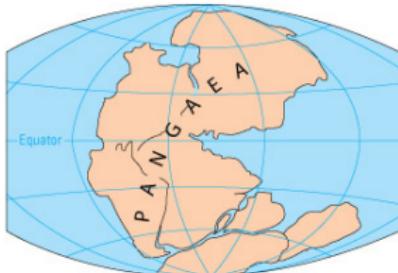
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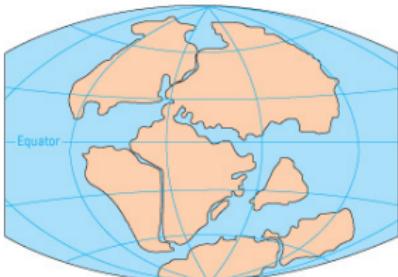
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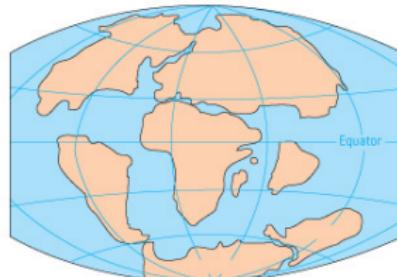
PERMIAN
225 million years ago



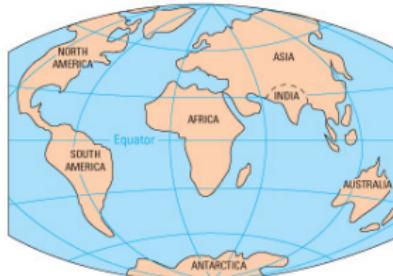
TRIASSIC
200 million years ago



JURASSIC
150 million years ago



CRETACEOUS
65 million years ago



PRESENT DAY

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Prosimians: Bushbabies and lemurs



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Old World monkeys



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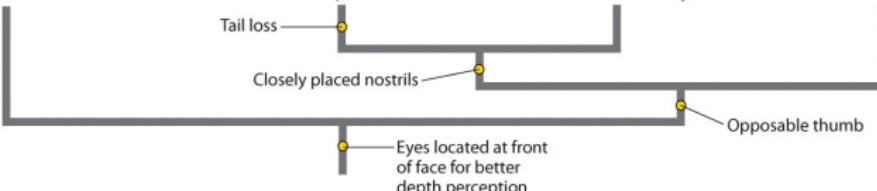


Figure 23.1
Biology: How Life Works
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Observing ourselves

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Outline

Patterns of evolution

Context for evolution

Our recent history

Primates

Apes

Hominins

Sociality

Learning about the past

Apes

- Apes are more adapted for swinging through trees, whereas monkeys are more adapted for climbing and leaping



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Apes

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Figure 23.11 (Part 2)
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 - Better at hanging, and worse at sitting



Figure 23-13 (Part 2)
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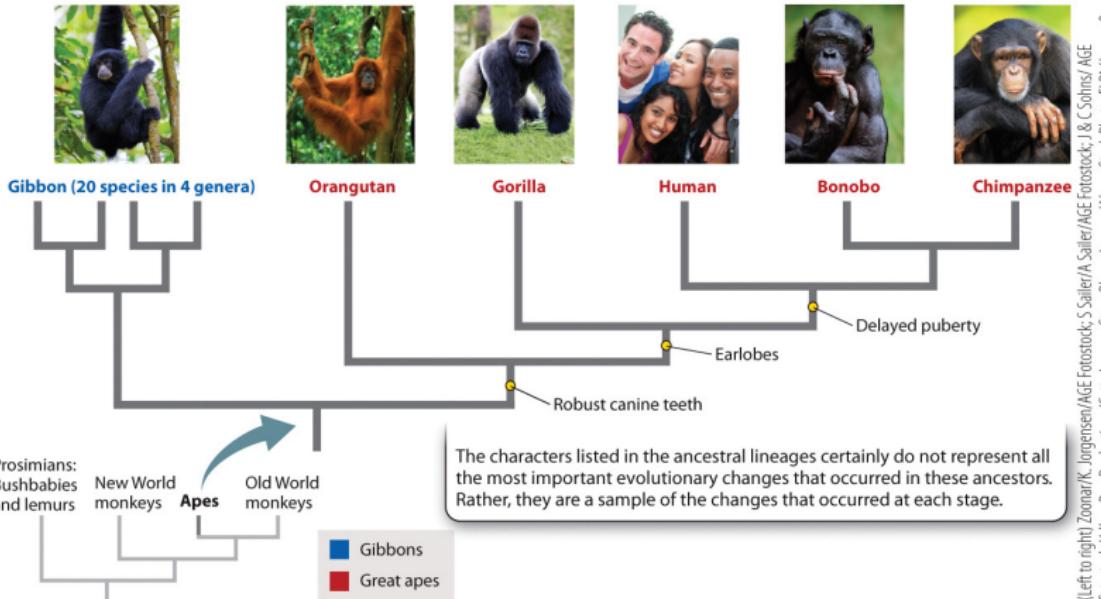


Figure 23.2
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The characters listed in the ancestral lineages certainly do not represent all the most important evolutionary changes that occurred in these ancestors. Rather, they are a sample of the changes that occurred at each stage.

[Left to right] Zonar/K. Jorgensen/AGE Fotostock; S. Sailer/A. Sailer/AGE Fotostock; J. & C. Sohns/AGE Fotostock; Yellow Dog Productions/Getty Images; Steve Bloom Images; Steve Bloom Stock Photo; FLPA/Jungen & Christin/AGE Fotostock

Endangered gibbons



PalmOilDetectives.Com

Mobile arm joints

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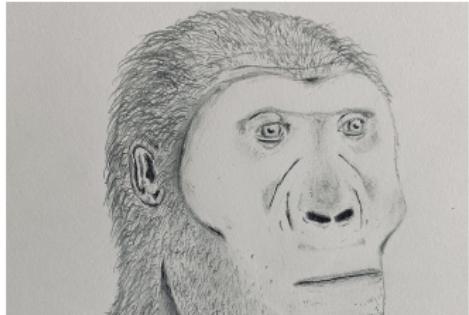
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(Left to right) Frans/Godwin Images/Alamy; Sylvain Leteressange & Elisabeth Daynes/Science Source; Sébastien Raby/Science Source; Sylvain Leteressange & Elisabeth Daynes/Science Source; Sautin Stock

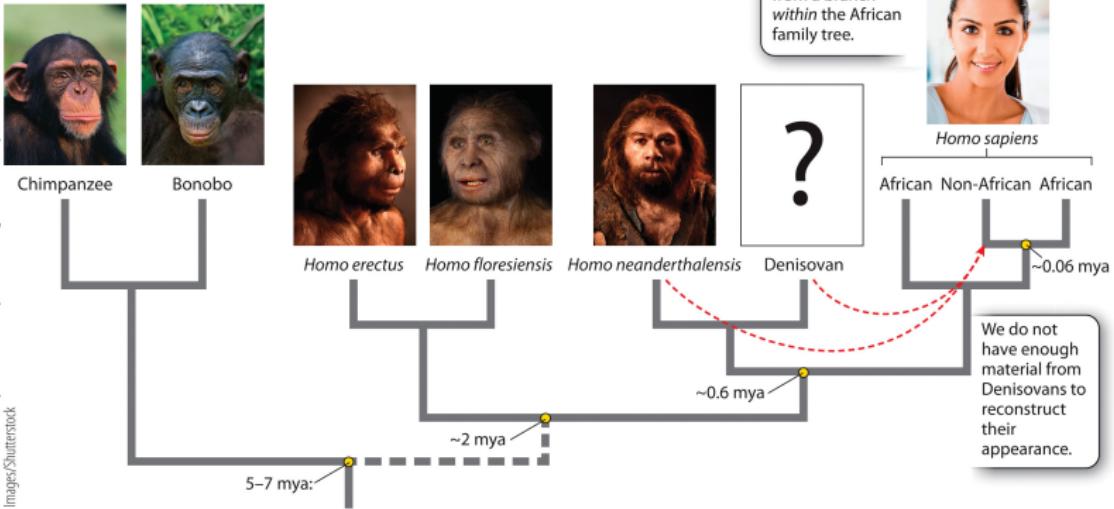
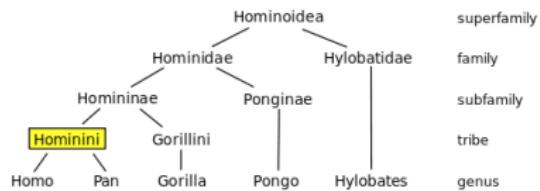


Figure 23.9

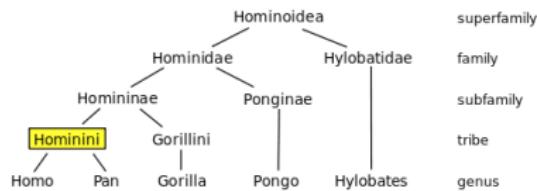
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Taxonomy

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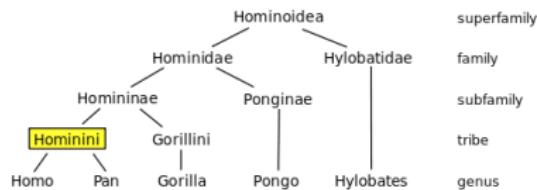
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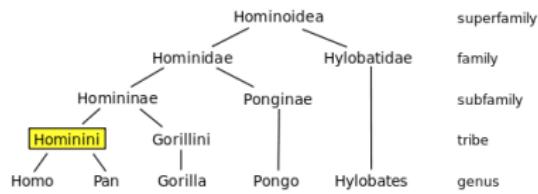


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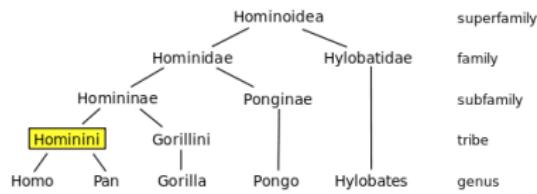


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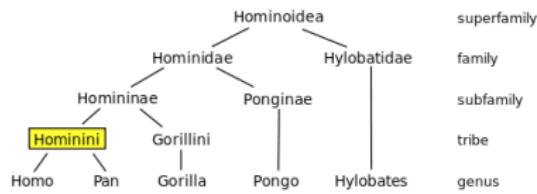
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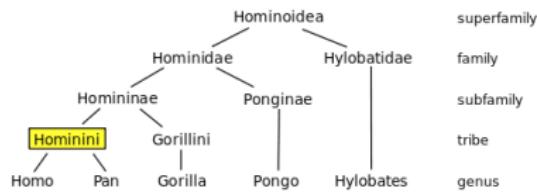
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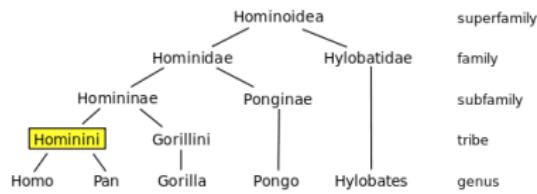
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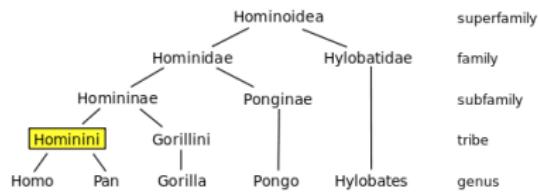


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More radiation and contraction

- ▶ *H. ergaster* probably out-competed and replaced several related species, then radiated

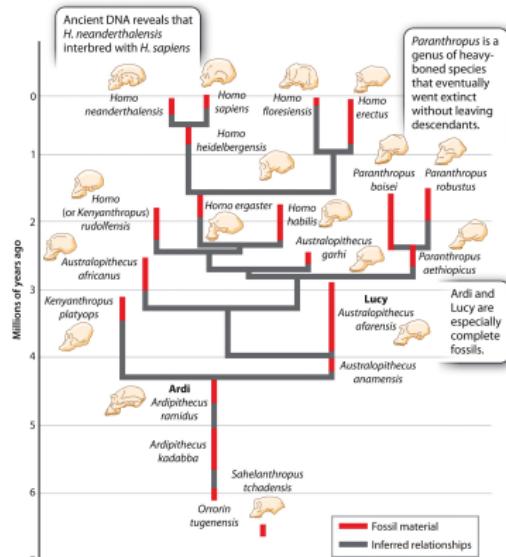


Figure 23.6
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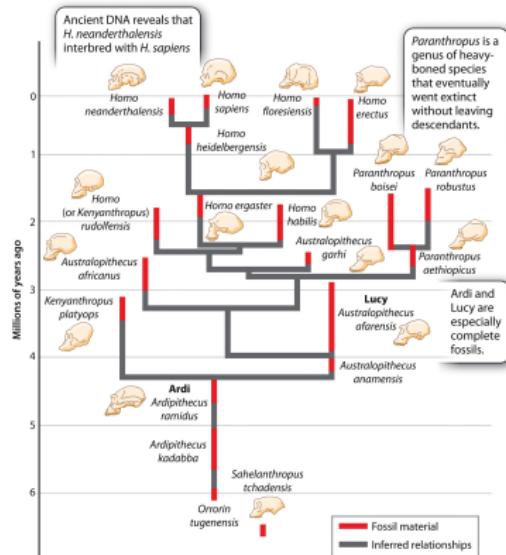


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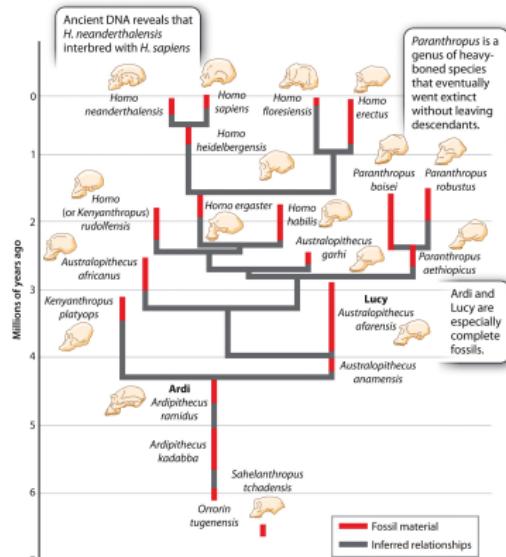


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Outline

Patterns of evolution

Context for evolution

Our recent history

Primates

Apes

Hominins

Sociality

Learning about the past

Complex foraging

- Our ancestors went beyond the adaptive strategies of their relatives and found a tremendous variety of ways to feed themselves:

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Data from Fig. 2.4, p. 44, in H. J. Jerison, 1973, *Evolution of the Brain and Intelligence*, New York: Academic Press.

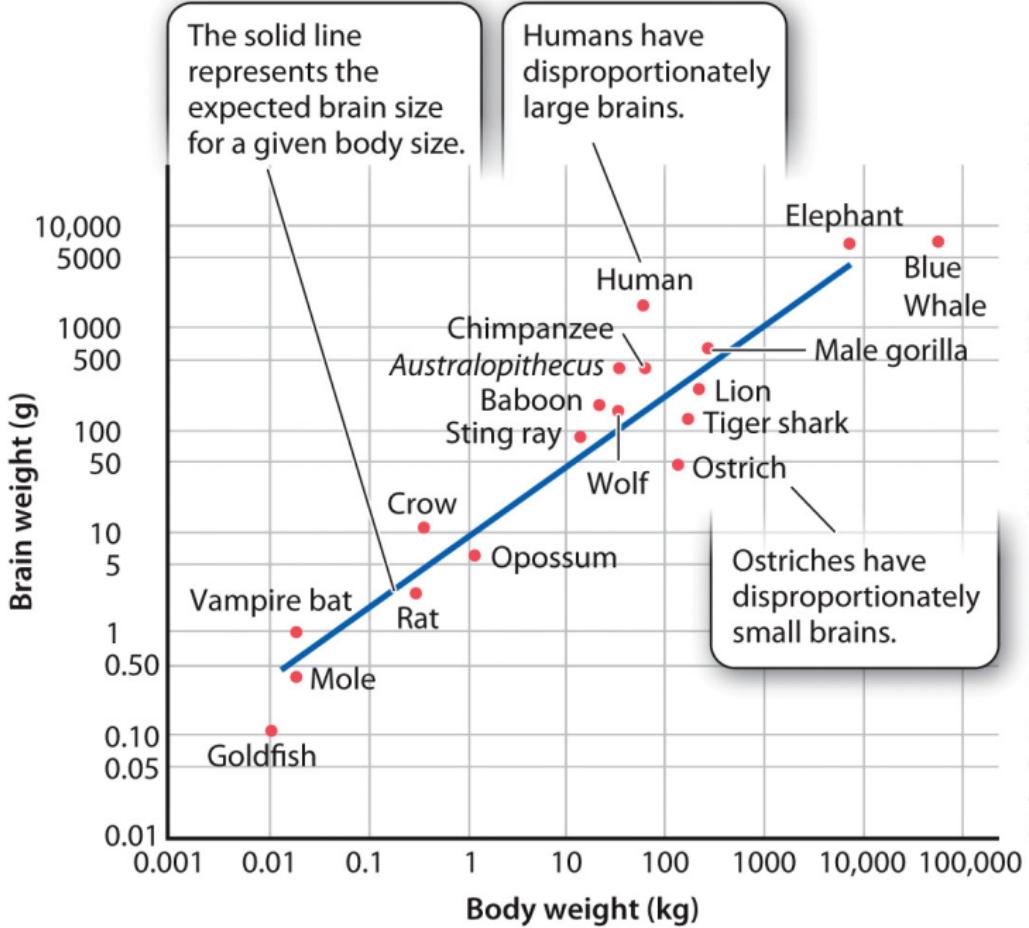


Figure 23.14

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Brain and body size

- What is missing from the book's picture?

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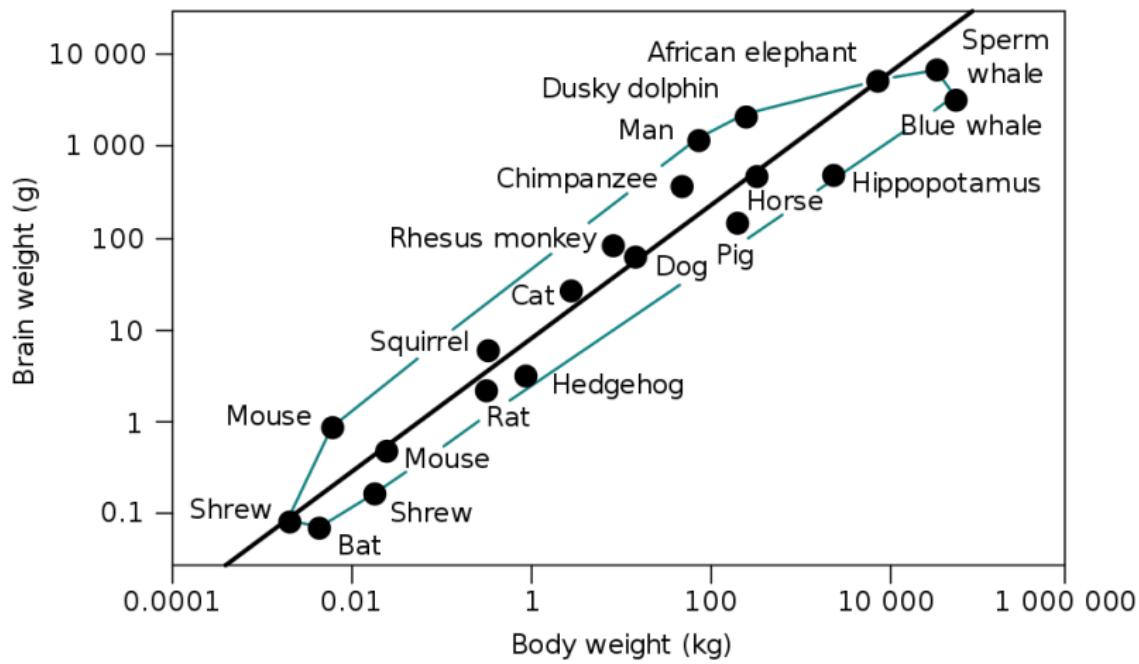
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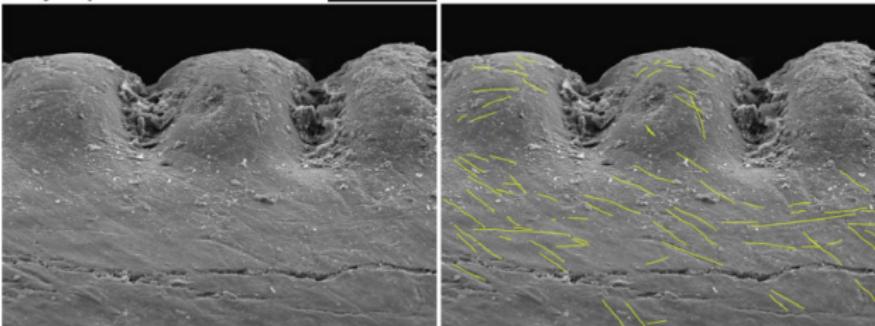
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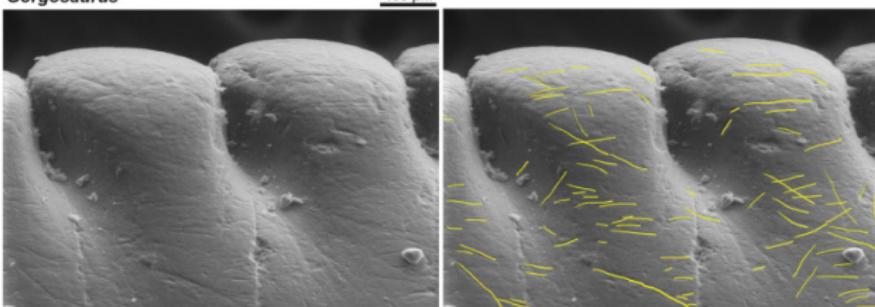
cf. *Pyroraptor*

100 µm



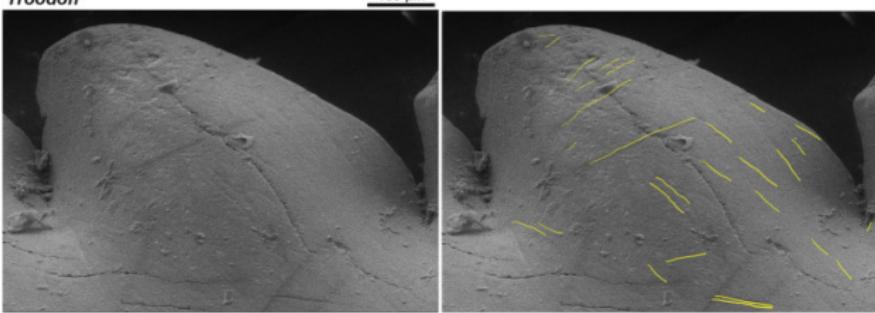
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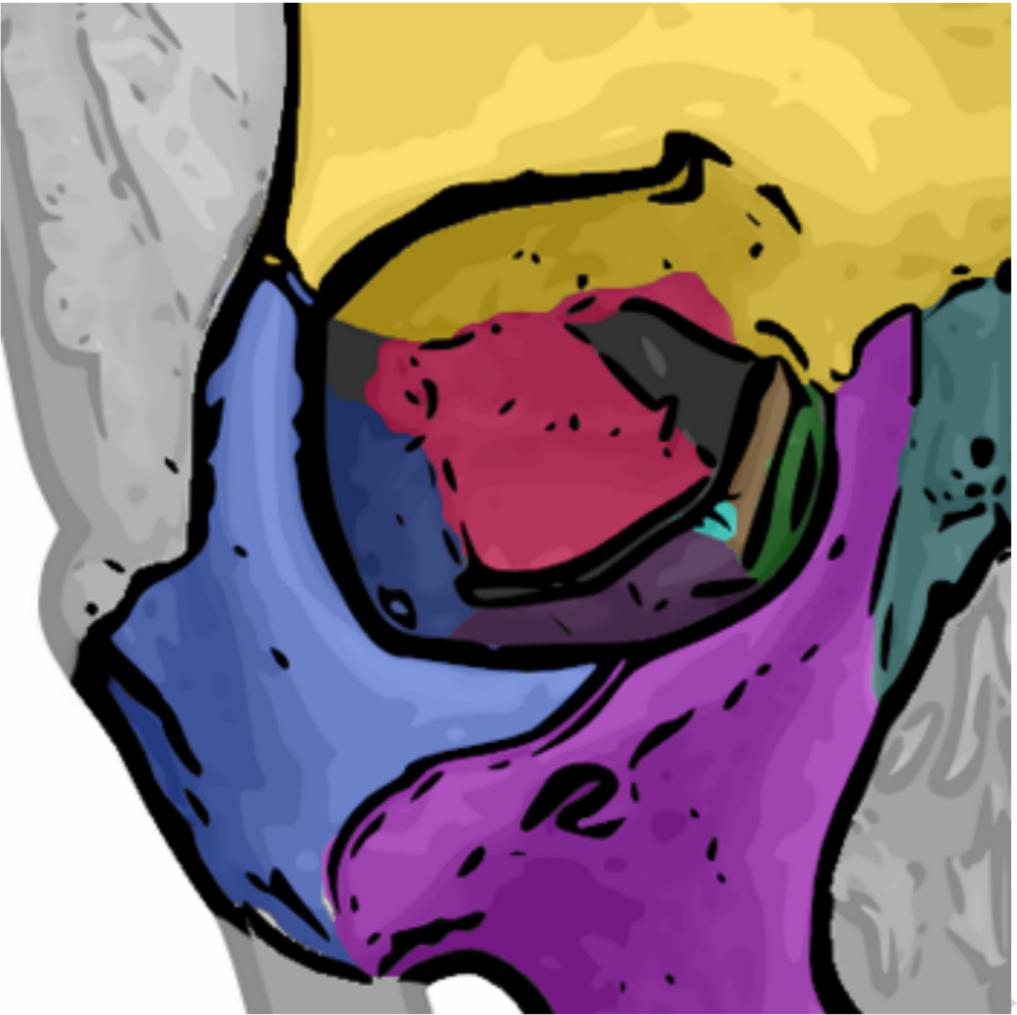
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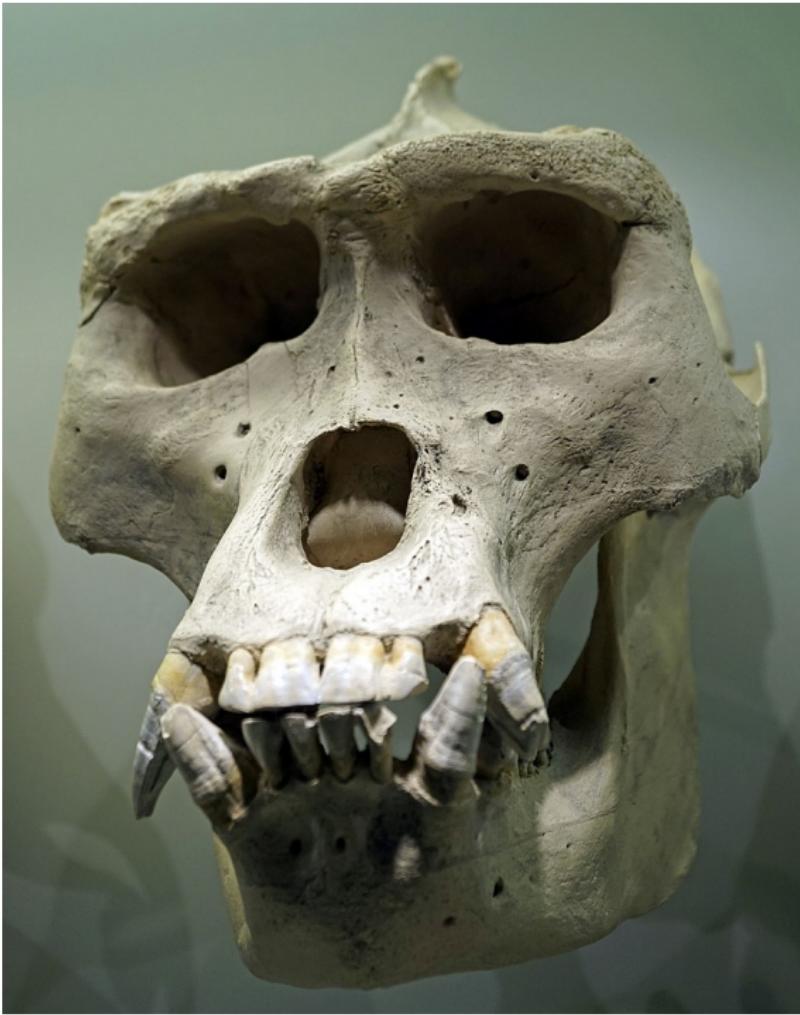
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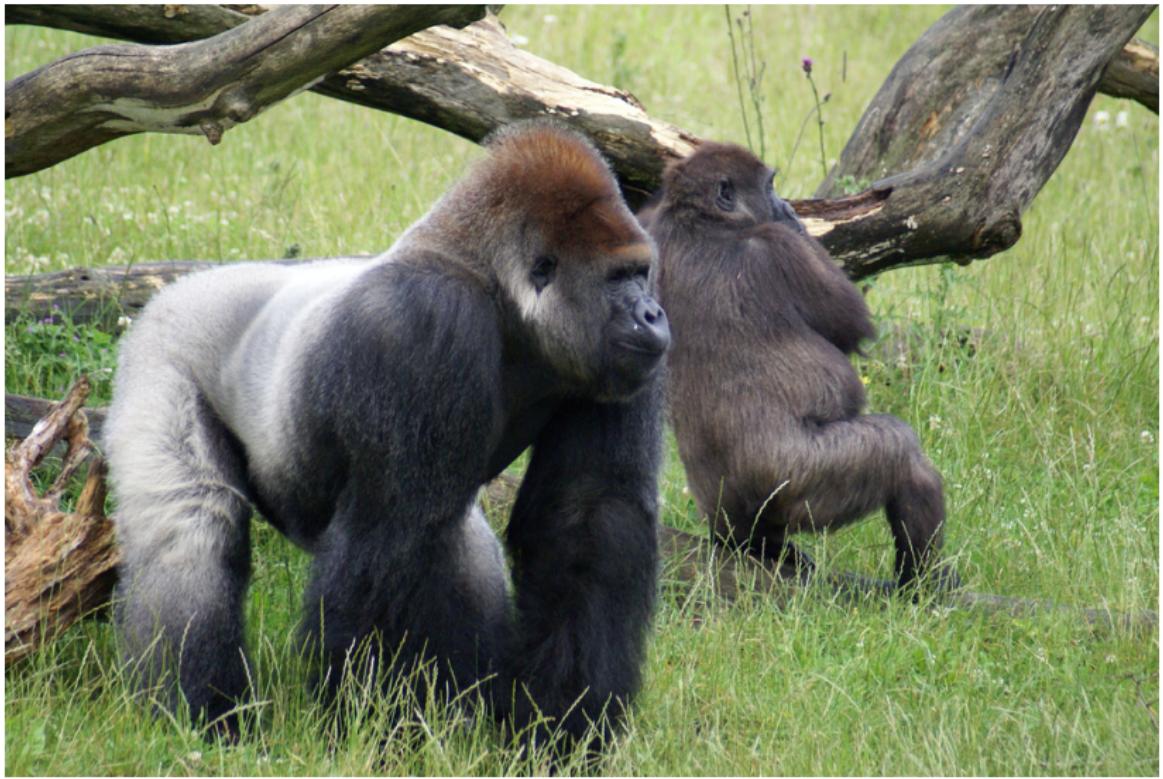
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