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Busts: Atelier Wildlife Art for Hessisches

Landesmuseum Darmstadt, Photos:

W. Fuhrmannek, HLMD, Drawing: *Ar. Ramidus*,

P. aethiopicus, *H. floresiensis*, *H. antecessor*,

H. heidelbergensis, *H. sapiens*: A. Marie Rahn;

ER 3733: Christine Hemm

back: L. Giemsch

Initial icons for contributions:

B. Groscurth/AMF/ROCEEH

Liane Giemsch, Miriam Noël Haidle

In search of the beginnings of our culture

1 Atelier Wildlife Art for Hessisches

Landesmuseum Darmstadt,

Photos: W. Fuhrmannek, HLMD.

2 B. Groscurth/AMF/ROCEEH

Thomas Junker

Between nature and culture:

the two origins of humanity

1 Tyson, E. 1699 *Orang-Outang, sive Homo Sylvestris: or, the Anatomy of a Pygmie compared with that of a Monkey, an Ape, and a Man* (London 1699), Abb. 1.

2 Belon, P. 1555 *L'histoire de la nature des oyseaux* (Paris 1555), 40–41.

3 Junker, T. 2018 *Die Evolution des Menschen*.

3. Aufl. (München 2018), 22.

4 Haeckel, E. 1911 *Natürliche Schöpfungsgeschichte*. 11. Aufl. (Berlin 1911), Tafel 29.

5 Bonner, J. T. 1980 *The evolution of culture in animals* (Princeton 1980) 1980, 167.

Friedemann Schrenk

Early human biocultural evolution

1 Friedemann Schrenk

2 A. M. Rahn, Ch. Hemm

3 Ch. Hemm

4 A. M. Rahn; American Museum of Natural History

5 Black skull: A. M. Rahn

KNM-ER 1470: Ch. Hemm

6 Drawings: A. M. Rahn; Virtual skull reconstruction *Homo sapiens*, Max Planck Institute for Evolutionary Anthropology, Leipzig; Zhkoudian: skull reconstruction, American Museum of Natural History

7 Hominin reconstructions: WildLifeArt

N. Kieser & W. Schnaubelt, Photo: F. Schrenk

Michael Bolus

The earliest stage of human stone tool technology: the Oldowan

1 Didier Descouens. Reproduction under the Creative Commons Licence CC BY-SA 4.0 (https://commons.wikimedia.org/wiki/File:Pierre_taille_C3%A9e_Melka_Kunture_C3%89thiopie_fond.jpg#/media/File:Pierre_taille_C3%A9e_Melka_Kunture_C3%89thiopie.jpg). Accessed 14.09.2020.

2 B. Groscurth/AMF/ROCEEH

3 Taken from Haidle 2012 (there compiled from Leakey 1971).

4 Data: ROAD and Michael Bolus (ROCEEH), Background map: T. Patterson, used under 'public domain' licensing, cartography: Christian Sommer (ROCEEH).

5 According to Harmand 2007 (see also Delagnes/Roche 2005).

6 Data: ROAD (ROCEEH), background map: T. Patterson, used under 'public domain' licensing, cartography: Christian Sommer (ROCEEH).

7 J.-M. Benito. Reproduced under licence 'public domain' (Author: Locutus Borg). Accessed 14.09.2020.

8 M. Arzarello. Reproduction under licensing 'public domain'. Accessed 14.09.2020.

Liane Giemsch

From Africa around the world: the Acheulean

1 A. Gonschior/Heidelberger Akademie der Wissenschaften

2 B. Groscurth/AMF/ROCEEH

3 from: Beyene, Y. u. a. 2013 The characteristics and chronology of the earliest Acheulean at Konso, Ethiopia. PNAS 110, 5, 2013, 1584–1591, Fig. 4.

4 J. Vogel/LVR.

5 Atelier Wildlife Art for Hessisches Landesmuseum Darmstadt, Photo: W. Fuhrmannek, HLMD.

6 Data: ROAD (ROCEEH), background map: T. Patterson, used under 'public domain' licensing, cartography: Christian Sommer (ROCEEH).

Liane Giemsch

Early human use of fire

1 J. Neskora on Unsplash.

2 B. Groscurth/AMF/ROCEEH

3 Data: ROAD (ROCEEH), background map: T. Patterson, used under 'public domain' licensing, cartography: Christian Sommer (ROCEEH).

Angela A. Bruch, Karen Hahn

Raw or roasted? How fire changed what's on the menu

1 M. Schmidt

2 Data: A. Bruch/K. Hahn, Illustration:

B. Groscurth/AMF/ROCEEH

3 Nr. 1 *Ficus sur*: Günter Baumann, African plants – A Photo Guide. www.africanplants.senckenberg.de

Nr. 2 *Hoslundia opposita*: Claude Boucher Chisale, African plants – A Photo Guide. www.africanplants.senckenberg.de

Nr. 3: *Brachystelma barberiae*: Wikimedia: Curtis botanical magazine pl.5607

Nr. 4 *Plectranthus esculentus*: Paul Latham, African plants - A Photo Guide. www.africanplants.senckenberg.de

Nr. 5: *Sclerocarya birrea subsp. caffra*: Claude Boucher Chisale, African plants – A Photo Guide. www.africanplants.senckenberg.de

Nr. 6: *Phoenix reclinata*: Jos Stevens, African plants - A Photo Guide. www.africanplants.senckenberg.de

Info box Baobab:

Baobabtree: K. Hahn;

Leaves: A. Lessmeister; Fruits: F. Schrenk

Miriam Noël Haidle

Takink a detour on the path to human thinking

1 R. Walter

2 M. N. Haidle

3–6 B. Groscurth/AMF/ROCEEH

7 M. N. Haidle

Christine Michel

Of rattles and puzzle boxes – social learning as the key to being human

1 pixabay.com

2 S. Michel

3 Graphic based on: Kobayashi, H., Kohshima, S. Unique morphology of the human eye. *Nature* 387, 767–768 (1997). <https://doi.org/10.1038/42842>

Photos: galago: pixabay.com; macaque: pixabay.com; human: E. Quednau/AMF; baboon: pixabay.com; gorilla: pixabay.com, orangutan: pixabay.de; chimpanzee: Gemeiner Schimpanse: Zeppelin <https://piqs.de/fotos/111667.html>; gibbon: pixabay.com

4 Design: E. Quednau/AMF, Graphic based on: Michel, C./Pauen, S./Hoehl, S. Schematic eye-gaze cues influence infants' object encoding dependent on their contrast polarity. *Scientific Reports* 7, 7347 (2017). <https://doi.org/10.1038/s41598-017-07445-9>
5 E. Quednau/AMF

Oliver Schlaudt

Habitus: The cultural primer

1 Martin Kraft, CC BY-SA 3.0, https://commons.wikimedia.org/wiki/Ovis_canadensis#/media/File:MK00658_Badlands_Big-horn_Sheep.jpg

2 Stout 2002, Fig. 5

3 Photo: M. S. Müller, K. Behrendt, Source: http://www2.braunschweig.de/licht-parcours2016/lp16/presse.html.media/350757/_MG_0668.jpg

Miriam Noël Haidle

Across the mountains, into the wide world.

Evidence of human expansion

1 H. Jensen, Uni Tübingen

2–7 Data: ROAD (ROCEEH), background map: T. Patterson, used under 'public domain' licensing, cartography: Christian Sommer (ROCEEH).

Roman M. Wittig

Chimpanzee cultures – a search for clues

1 C. Girard-Buttoz, Tai Chimpanzee Project

2 Ch. Boesch/Wild Chimpanzee Foundation

3 L. Samuni, Tai Chimpanzee Project (a–c), D. Morgan & C. Sanz (d).

4 B. Groscurth/AMF/ROCEEH, according to Fig. 1 from Whiten et al. 1999.

5 T. Gruber

6 L. Luncz

Info box Nutcracking

R. Wittig

Page 134 A. Gonschior/Heidelberger Akademie der Wissenschaften

Madelaine Böhme

Tracing the steps to becoming human: research and scientific methods

1–3 L. Giemsch

PROFILES

Homo sapiens

Homo heidelbergensis

Ardipithecus ramidus and kadabba

A. M. Rahn

Homo neanderthalensis

Bust: © Atelier Wildlife for Hessisches Landesmuseum Darmstadt

Foto: Wolfgang Fuhrmannek, HLMD

Drawings: A. M. Rahn

Homo erectus

Bust: © Atelier Wildlife Art for Hessisches Landesmuseum Darmstadt

Foto: W. Fuhrmannek, HLMD

Drawings: OH9: Ch. Hemm

Sangiran 17 and Dmanisi D2700:

A. Marie Rahn

Homo ergaster

ER 3733 und Turkana Boy: Ch. Hemm
Turkana Boy walking and skull:

A. Marie Rahn

Homo habilis

Bust: © Atelier Wildlife Art for Hessisches Landesmuseum Darmstadt

Photo: W. Fuhrmannek, HLMD

Drawings: KNM-ER 1813: C. Schnubel

OH7: Ch. Hemm

Homo rudolfensis

Bust: © Atelier Wildlife for Hessisches Landesmuseum Darmstadt

Photo: W. Fuhrmannek, HLMD

Drawings:

KNM ER 1470: A. Marie Rahn

UR 501: C. Schnubel

Australopithecus africanus

Bust: © Atelier Wildlife Art for Hessisches Landesmuseum Darmstadt

Photo: W. Fuhrmannek, HLMD

Drawings: C. Schnubel

Australopithecus afarensis

Drawings: Lucy walking: C. Schnubel

Other: A. M. Rahn

Paranthropus boisei

Photo: D. Hoffmann/AMF

Bust: © Atelier Wildlife for Hessisches Landesmuseum Darmstadt

Photo: W. Fuhrmannek, HLMD

Sahelanthropus tchadensis

Drawing: Ch. Hemm

Bust: © Atelier Wildlife for Hessisches Landesmuseum Darmstadt

Photo: W. Fuhrmannek, HLMD