

RESOURCES AND REFERENCES



Cambio a Flor de Piel

which roughly translates from Spanish into English as "Changing the flower's skin", is a short movie explaining how the science of the past can help us achieve a better future. The movie uses a unique media format to transmit science - the mixture of bodypainting, music, and poetry - transforming science into emotions and appealing to our artistic sides. The movie is directed by Graciela Gil-Romera (@gilromera) and Alejandra Vicente de Vera (@jani_vdv), part-time artists as well as scientists in the Palaeoenvironments and Global Change group at the Pyrenean Institute of Ecology (IPE-CSIC) (@PaleoIPE). Watch the video, with multilingual subtitles: youtube.com/watch?v=rnRfbOZ-ui0



Weathered History

is a digital exhibition showing the material side of past climate change. Climate history is visualized using objects from 12,000 years of human history. On display are diverse testimonies from a wide range of countries, from cave paintings to sometimes curious technical inventions, such as the "dandy horse", and weather reports on cigarette packets from Hong Kong. The exhibition, which is available in German and English, was created by the Leibniz Institute for the History and Culture of Eastern Europe (GWZO), in cooperation with PAGES' Climate Reconstruction and Impacts from the Archives of Societies (CRIAS) working group: pastglobalchanges.org/crias. Watch Weathered History: artsandculture.google.com/exhibit/weathered-history/hwJiMeBlg6zDLg?hl=en

For further insights into some scientific research topics, exhibitions, books, and videos, go to the Outreach section of the Institut de recherche en sciences de l'environnement (IPSL) website: ipsl.fr/en/Outreach

Mills and Jones (pp. 4-5)

1. UN SDGs
2. Intergovernmental Panel on Climate Change Assessment Reports

Oldfield (pp. 6-8)

1. IPCC (2013) Stocker TF et al. (Eds) *Climate Change 2013: The Physical Science Basis*. Cambridge University Press, 1535 pp.
2. Leedham C, Allen M (2021) *Global Warming Index*: <https://globalwarmingindex.org>, accessed 17 March 2021
3. *Real Climate*: A useful and authoritative website covering all aspects of climate change, including modeling
4. *Nature Climate Change*: Up-to-date accounts from primary sources, often with more accessible editorial summaries of important issues. Original articles can also be accessed online
5. *Intergovernmental Panel on Climate Change (IPCC)*: It is important to make yourself aware of the reports issued by the IPCC
6. *NASA*: Summaries of evidence for, and the nature of, climate change
7. *Carbon Brief*: A useful introduction to climate models is provided by the Q&A "How do climate models work?"
8. *Tree rings*: A clear and relatively simple explanation of the use of tree rings to reconstruct climate (dendroclimatology)

Hernández-Almeida and Saavedra-Pellitero (pp. 9-11)

1. *Florisphaera*: Check out the original publication to learn about past ocean productivity using *Florisphaera profunda*
2. *EarthLabs*: Phytoplankton - The Ocean's Green Machines
3. *ESA*: Twenty years of ocean primary productivity, as seen from space

Courtillot (pp. 12-15)

1. *Blog*: The expedition describing day to day life on board with a lot of illustrations (in French)
2. *Video*: Made by Vivien Cumming during the expedition, this video explains the scientific project in detail (in English)
3. *Video*: Also made onboard, this report explains diatoms and their role in the reconstruction of Antarctic history (in English)
4. *Website*: Karen Romano Young was the artist on board during the expedition
5. Gohl K et al. (2019) *Expedition 379 Preliminary Report: Amundsen Sea West Antarctic Ice Sheet History*. International Ocean Discovery Program
6. Naish T et al. (2009) *Nature* 458: 322-328
7. IPCC (2018) Masson-Delmotte V et al. (Eds) *Global Warming of 1.5°C*. World Meteorological Organization, 32 pp.

Sefton and Tan (pp. 16-19)

1. IPCC: Pörtner H-O et al. (Eds) (2019) *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*
2. Kopp RE et al. (2016) *Proc Natl Acad Sci USA* 113: E1434-E1441
3. CSIRO (2016) *Sea level data*: www.cmar.csiro.au/sealevel/sl_data_cmar.html, accessed 6 September 2020
4. NASA (2020) *Understanding sea level: Global mean sea level*: <https://sealevel.nasa.gov/understanding-sea-level/key-indicators/global-mean-sea-level/>, accessed 6 September 2020
5. Galili E et al. (2019) *PLoS One* 14: e0222560

Hunt et al. (pp. 36-37)

1. *Blog*: Read about our recent fieldwork in Uganda
2. *Video*: Watch an interview with Tessa Driessen about her research and photography

Miebach (pp. 38-40)

1. [Litt et al. \(2012\) Quat Sci Rev 49: 95-105](#)
2. [Video](#): Tired of reading? Take a look at this short video about pollen
3. [Video](#): Want to know more about pollen analysis? Here's an informative video
4. [Video](#): Some nice images from the Dead Sea

De Porras et al. (pp. 44-48)

1. [Workman TR et al. \(2020\) Quat Sci Rev 243: 106502](#)
2. Villavicencio NA et al. (2019) In: Cartes L et al. (Eds) *Avances en Paleontología Chilena*. Instituto Antártico Chileno, pp. 296-298
3. [Maldonado A et al. \(2016\) PAGES Mag 24: 56-57](#)
4. [Santoro CM et al. \(2017\) J Anthropol Archaeol 46: 28-39](#)
5. [Uribe M et al. \(2020\) Lat Am Antiq 1: 81-102](#)
6. [Uribe M \(2006\) Estudios atacameños 31: 91-114](#)
7. [Gayo EM et al. \(2019\) Elem Sci Anth 7: 15](#)

Olatoyan (pp. 49-51)

1. [Ferrar AA, Lötter MC \(2007\) Mpumalanga biodiversity conservation plan handbook](#). Mpumalanga Tourism & Parks Agency, pp 9-12
2. [Huffman TN \(2007\) Handbook to the Iron Age: the archaeology of pre-colonial farming communities in southern Africa](#), pp 331
3. [Manning K et al. \(2011\) J Archaeol Sci 38: 312-322](#)
4. [Crowther A et al. \(2018\) Quat Int 489: 101-120](#)
5. [Humphris JE \(2010\) An Archaeometallurgical Investigation of Iron Smelting Traditions in Southern Rwanda](#). PhD thesis, pp. 37-43
6. [MIME/ADB \(1996\) Cambodian Energy Statistics; Sources of Energy Data and Methods of Estimation](#). United Nations, 69 pp
7. [Food and Agriculture Organization \(FAO\) \(2010\) Forestry Paper, Ch. 2](#)
8. [Shi N et al. \(1998\) Veg Hist Archaeobot 7: 127-140](#)
9. [Willis KJ \(2019\) Tribulus terrestris \(85.4.1 - 1\)](#). Digitized palynological slide. Obtained from: [Martin AC, Harvey WJ \(2017\)](#)
10. [Widgren M et al. \(2016\) J Afr Archaeol 14: 33-53](#)

Glossary (pp. 54-55)

1. **Age models**: On this website, under "Software and animations", you can see an animation of how fast sediments deposit and how the depth-age model is therefore built.
2. **Radiocarbon**: Here's an interesting article in *The Conversation* about how radiocarbon dating works

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Frisia et al. (pp. 30-33)

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