

## Some www links on Amber (as of April 2021)

Compiled by Sue Gorday, Georgia Mineral Society, Atlanta GA (April 3, 2021)

When researching the March 2021 Gem Section Program on Amber, I found far more information than could be covered in one meeting. Attached are some references I found interesting.

The list is nowhere near complete, but does provide a starting point for amber information available on the www. Caution: Some links have a paywall, some are from commercial organizations interesting in selling their product.

Enjoy yourself as you fall into the Amber Rabbit Hole!

### Gem and Mineral Clubs

- <https://www.gamineral.org/writings/amber-westlake.html>

Nice article by our own Anita Westlake on Amber

Report on Alabama club field trip with university researchers to salvage fossils before construction.

Amber was found in lignite: [Bps-al.org/trips/20260402.html](http://Bps-al.org/trips/20260402.html) (site had problems at time of writing)

### Alabama and GA amber and related geology

- [https://epd.georgia.gov/sites/epd.georgia.gov/files/related\\_files/site\\_page/B-26.pdf](https://epd.georgia.gov/sites/epd.georgia.gov/files/related_files/site_page/B-26.pdf)
- <https://www.jstor.org/stable/27670519?seq=1>

**Character and Genesis of the Ingersoll Shale, a Compact Continental Fossil-Lagerstätte, Upper Cretaceous Eutaw Formation, Eastern Alabama** P. Sean Bingham, Charles E. Savrda, Terrell K. Knight and Ronald D. Lewis

- [https://www.researchgate.net/publication/232388107\\_A\\_new\\_Upper\\_Cretaceous\\_Santonian\\_amber\\_deposit\\_from\\_the\\_Eutaw\\_Formation\\_of\\_eastern\\_Alabama\\_USA](https://www.researchgate.net/publication/232388107_A_new_Upper_Cretaceous_Santonian_amber_deposit_from_the_Eutaw_Formation_of_eastern_Alabama_USA)
- <https://www.sciencedirect.com/science/article/abs/pii/S0195667109001116>

Terrell K.Knight, P. SeanBingham, David A.Grimaldi, KenAnderson, Ronald D.Lewis, Charles E.Savrda

### Museums

- <https://en.natmus.dk/historical-knowledge/denmark/prehistoric-period-until-1050-ad/the-neolithic-period/neolithic-amber/large-finds-of-danish-amber/>
- <https://www.nps.gov/museum/publications/conservoogram/11-17.pdf>
- <https://ambers.netlify.app/downloads/output.pdf>

J. Paul Getty Museum

- [https://www.academia.edu/10335293/The\\_Magic\\_of\\_Amber](https://www.academia.edu/10335293/The_Magic_of_Amber)

ALEKSANDAR PALAVESTRAVERA KRSTIĆ NATIONAL MUSEUM Belgrade 2006

- <https://museum-of-artifacts.blogspot.com/2015/10/the-amber-bear-amulet-3500-years-old.html>

Not really a museum, but...the bear is cute

### Wikis

- <https://en.wikipedia.org/wiki/Amber>
- <https://en.wikipedia.org/wiki/Copal>
- [https://en.wikipedia.org/wiki/Geologic\\_time\\_scale#:~:text=The%20geologic%20time%20scale%20\(GTS,of%20events%20in%20geologic%20history.](https://en.wikipedia.org/wiki/Geologic_time_scale#:~:text=The%20geologic%20time%20scale%20(GTS,of%20events%20in%20geologic%20history.)

### GIA and other trade associations

- <https://www.gia.edu/search/articles?q=amber>
- <https://www.gemsociety.org/article/amber-jewelry-and-gemstone-information/>
- <https://www.gia.edu/amber>
- <https://www.amber.org.pl/en>

(Poland based amber trade group)

#### Other references

- <https://www.mindat.org/min-188.html>
- <http://www.madehow.com/Volume-7/Amber.html>

#### Articles

- <https://www.chicagotribune.com/news/ct-xpm-1990-09-26-9003200579-story.html>
- <https://www.pbs.org/wgbh/nova/nature/amber-locations.html>
- <https://www.sciencedirect.com/science/article/abs/pii/S003238611301015X>

**Something about amber: Fictive temperature and glass transition temperature of extremely old glasses from copal to Triassic amber** (amber from same source can have different properties)

- <https://www.sciencemag.org/news/2019/11/remarkable-fossil-features-insect-trapped-amber-stuck-dinosaur-jaw>

(Canadian amber stuck to dinosaur fossil)

- <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0202235>

Review article – include information on Iberian amber

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6114727/>
- [https://www.researchgate.net/publication/260249144\\_Amber\\_Sources\\_and\\_Trade\\_in\\_the\\_Prehistory\\_of\\_the\\_Iberian\\_Peninsula](https://www.researchgate.net/publication/260249144_Amber_Sources_and_Trade_in_the_Prehistory_of_the_Iberian_Peninsula)
- [https://www.beadresearch.org/wp-content/uploads/Repeating\\_Material/Europe-Mediterranean.pdf](https://www.beadresearch.org/wp-content/uploads/Repeating_Material/Europe-Mediterranean.pdf)
- [https://www.researchgate.net/publication/266537829\\_The\\_Eocene\\_Climatic\\_Optimum\\_and\\_the\\_formation\\_of\\_the\\_Baltic\\_amber\\_deposits](https://www.researchgate.net/publication/266537829_The_Eocene_Climatic_Optimum_and_the_formation_of_the_Baltic_amber_deposits)

#### Lithuanian amber in prehistory (Baltic)

- <https://core.ac.uk/download/pdf/233175131.pdf>

Amber bead producing workshop in Lithuania (Middle Neolithic)

- [https://beadresearch.org/wp-content/uploads/Repeating\\_Material/The\\_Bead\\_Forum\\_Archive/The-Bead-Forum-Issue-65-Autumn-2014.pdf](https://beadresearch.org/wp-content/uploads/Repeating_Material/The_Bead_Forum_Archive/The-Bead-Forum-Issue-65-Autumn-2014.pdf)

International Conference: Baltic Amber Across Time and Borders Karlis Karklins 2014 report

#### Plant sources of amber

- <https://onlinelibrary.wiley.com/doi/pdf/10.1111/brv.12414>

**Production and preservation of resins – past and present** Leyla J. Seyfullah, Christina Beimforde<sup>1</sup>, Jacopo Dal Corso, Vincent Perrichot<sup>3</sup>, Jouko Rikkinen and Alexander R. Schmidt

- <https://www.jstor.org/stable/27858931?mag=facts-and-fancies-about-amber&seq=1>

Amber's Botanical Origins Revealed: Large collections of the substances exuded by trees today may help to track backward from amber samples to the ancient plants that produced them Jorge A. Santiago-Blay and Joseph B. Lambert - nice review

#### Baltic Amber

- <https://www.amber.org.pl/en/wlasciwosci>

### Amber Room

- <https://www.smithsonianmag.com/history/a-brief-history-of-the-amber-room-160940121/>
- <https://designandfashionmagazine.com/2020/10/03/the-mystery-of-the-amber-room/>

Article has photographs of decorations and carvings which decorate the restored Amber Room –some truly amazing workmanship.

- <https://www.gia.edu/gems-gemology/winter-2018-history-and-reconstruction-of-amber-room>
- [https://en.wikipedia.org/wiki/Amber\\_Road](https://en.wikipedia.org/wiki/Amber_Road)

### Blue amber

- <http://www.geologyin.com/2017/04/what-causes-color-phenomena-of-blue.html>
- <https://www.indoagate.com/blueamber.html>

Includes description of amber mining in Indonesia.

### Treated amber (first three reference the same work)

- [An Update on Identification Features of Treated Baltic Amber \(gem-a.com\)](#)

*The Journal of Gemmology* entitled ‘Gemmological and Spectroscopic Features of Untreated vs. Heated Amber’ by Yamei Wang, Mingxing Yang, Shufang Nie and Fen Liu **2017/Volume 35/ No. 6 pp. 530-542**

- [https://gem-a.com/images/Documents/JoG/2017/Jog\\_35\\_6.pdf](https://gem-a.com/images/Documents/JoG/2017/Jog_35_6.pdf)

*The Journal of Gemmology* ‘Gemmological and Spectroscopic Features of Untreated vs. Heated Amber’ by Yamei Wang, Mingxing Yang, Shufang Nie and Fen Liu 2017/Volume 35/ No. 6 pp. 530-542 ; see page 72 in journal (Original source): Several pieces of Baltic amber were sliced into sections (5 – 7 each) and treated. Results are shown, after treatment changes include color, and color banding. FT-Raman spectra is used to show changes on molecular level caused by treatments.

- <https://www.gia.edu/gems-gemology/summer-2014-wang-heat-treatment-of-baltic-amber>

**Amber trade group – amber treatment** - Described various treatments and types of treated amber

- <https://www.amber.org.pl/en/klasyfikacja>
- <https://www.natural-baltic-amber.com/genuine-amber/>
- <https://www.americawest.com/ambertypes/>

### Myanmar (Burma) fossils in amber

- <https://www.sciencemag.org/news/2019/05/fossils-burmese-amber-offer-exquisite-view-dinosaur-times-and-ethical-minefield>
- <https://www.theatlantic.com/science/archive/2019/08/amber-fossil-supply-chain-has-dark-human-cost/594601/>
- <https://www.bbc.com/news/science-environment-44458201?SThisFB>
- <https://www.floridamuseum.ufl.edu/science/amber-fossils-oldest-frogs-tropical-forests/>
- <https://www.bbc.com/news/science-environment-44458201?SThisFB>
- <https://www.gia.edu/gems-gemology/summer-2016-microworld-inclusions-burmese-amber>

### Mexican amber

- <https://www.mexicanist.com/l/amber-from-chiapas-the-gem-of-mexico/>
- <https://mexicanamber.org/about-chiapas-amber>
- <https://www.nature.com/articles/srep34872>

Early Miocene amber inclusions from Mexico reveal antiquity of mangrove-associated copepods Rony Huys, Eduardo Suárez-Morales, María de Lourdes Serrano-Sánchez, Elena Centeno-García & Francisco J. Vega

- [https://en.wikipedia.org/wiki/Mexican\\_amber](https://en.wikipedia.org/wiki/Mexican_amber)

## COPAL

- <https://www.nature.com/articles/s41598-020-76808-6>

**A revised definition for copal and its significance for palaeontological and Anthropocene biodiversity-loss studies** Mónica M. Solórzano-Kraemer, Xavier Delclòs, Michael S. Engel & Enrique Peñalver

## Jet

- <https://geology.com/gemstones/jet/>

## Fakes

- <https://www.nms.ac.uk/media/1158004/fake-amber-necklaces-key.pdf>
- [https://www.researchgate.net/publication/273287099\\_Fake\\_it\\_till\\_you\\_make\\_it\\_the\\_uncanny\\_art\\_of\\_forging\\_amber](https://www.researchgate.net/publication/273287099_Fake_it_till_you_make_it_the_uncanny_art_of_forging_amber)
- <https://cosmosmagazine.com/geoscience/amber-beads-revealed-as-prehistoric-fakes/>
- <https://earthscience.stackexchange.com/questions/2528/is-it-theoretically-possible-to-artificially-create-amber>
- <http://www.thenaturalamber.com/blog/6-amber-tests-identifying-real-amber/>
- <https://surface.syr.edu/cgi/viewcontent.cgi?article=1261&context=beads>
- <https://www.gsoc.org/news/2020/5/12/fakefossilsarticle>

**Imitation Amber Beads of Phenolic Resin from the African Trade** Rosanna Falabella

- <https://www.jtv.com/library/article/gemstone-copal-vs-amber>

Lab testing of amber vs copal vs heat treated copal

- [http://upg-bulletin-se.ro/old\\_site/archive/2006-2/3.%20Raducanu.pdf](http://upg-bulletin-se.ro/old_site/archive/2006-2/3.%20Raducanu.pdf)

**Actual Exigencies Concerning the Quality of Amber Pieces Commercialized in Romania** Ileana Răducanu

- <https://www.wikihow.com/Test-Amber-Gemstones>