

Ancient Color: References and Further Reading

General

An Atlas of Rare & Familiar Colour: The Harvard Art Museums' Forbes Pigment Collection. Los Angeles: Atelier Editions, 2018.

Finlay, Victoria. *Colour: Travels Through the Paintbox*. London: Hodder & Stoughton, 2002.

St. Clair, Kassia. *The Secret Lives of Color*. New York: Penguin Books, 2017.

Creating Color

Arnaud, P. 2005. *Les routes de la navigation antique: itinéraires en Méditerranée*. Paris: Editions Errance, 7 - 13.

Cardon, Dominique. *Natural Dyes: Sources, Tradition, Technology and Science*. London: Archetype, 2007.

Charlesworth, Martin Percival. *Trade-Routes and Commerce of the Roman Empire*. Cambridge University Press, 1961.

Delamare, François, and Bernard Guineau. *Colors: The Story of Dyes and Pigments*. New York: H. N. Abrams, 2000.

Dubois, Charles. *Pouzzoles antique (histoire et topographie)*. Paris: A. Fontemoing, 1907, esp. pp. 127–29.

Errington, Benjamin, Glen Lawson, Simon Lewis, and Gregory D. Smith. "Micronised Egyptian Blue Pigment: A Novel Near-Infrared Luminescent Fingerprint Dusting Powder." *Dyes and Pigments* 132 (2016): 310–15. <https://doi.org/10.1016/j.dyepig.2016.05.008>.

Forbes, Robert J. *Studies in Ancient Technology*. 2nd ed. 3 vols. Leiden: Brill, 1965, esp. vol. 3, pp. 211–36.

Gettens, Rutherford John, and George Leslie Stout. *Painting Materials: A Short Encyclopedia*. New York: Dover, 1942, esp. pp. 91–181.

Giachi, Gianna, E. De Carolis, and Pasquino Pallecchi. "Raw Materials in Pompeian Paintings: Characterization of Some Colors from the Archaeological Site." *Materials and Manufacturing Processes* 24, no. 9 (2009): 1015–22. <https://doi.org/10.1080/10426910902982631>.

Hatton, Gareth D., Andrew J. Shortland, and Michael S. Tite. "The Production Technology of Egyptian Blue and Green Frits from Second Millennium BC Egypt and Mesopotamia." *Journal of Archaeological Science* 35, no. 6 (2008): 1591–1604. <https://doi.org/10.1016/j.jas.2007.11.008>.

Kakoulli, Ioanna. *Greek Painting Techniques and Materials from the Fourth to the First Century BC*. London: Archetype, 2009.

- Lee, Lorna, and Stephen Quirke. "Painting Materials." In *Ancient Egyptian Materials and Technology*, edited by Paul T. Nicholson and Ian Shaw, pp. 104–20. Cambridge and New York: Cambridge University Press, 2000.
- Lucas, Alfred. *Ancient Egyptian Materials and Industries*. London: Arnold, 1926, esp. pp. 282–95.
- Mazzocchin, Gian-Antonio, Alvise Vianello, Silvia Minghelli, and Danilo Rudello. "Analysis of Roman Wall Paintings from the Thermae of 'Iulia Concordia'." *Archaeometry* 52, no. 4 (2010): 644–55. <https://doi.org/10.1111/j.1475-4754.2009.00501.x>.
- Neiman, Madeleine Kegelman, Magdalena Balonis, and Ioanna Kakoulli. "Cinnabar Alteration in Archaeological Wall Paintings: An Experimental and Theoretical Approach." *Applied Physics A* 121, no. 3 (2015): 915–38. <https://doi.org/10.1007/s00339-015-9456-x>.
- Oleson, John Peter. *Oxford Handbook of Engineering and Technology in the Classical World*. Oxford and New York: Oxford University Press, 2008, esp. pp. 94–120, 465–82.
- Østergaard, Jan Stubbe and Anne Marie Nielsen, eds. *Transformations: Classical Sculpture in Colour*. Copenhagen: Ny Carlsberg Glyptotek, 2014.
- Picollo, Marcello, Mauro Bacci, Andrea Casini, Franco Lotti, Simone Porcinai, Bruno Radicati, and Lorenzo Stefani. "Fiber Optics Reflectance Spectroscopy: A Non-Destructive Technique for the Analysis of Works of Art." In *Optical Sensors and Microsystems: New Concepts, Materials, Technologies*, edited by Sergio Martellucci, Arthur N. Chester, and Anna Grazia Mignani, pp. 259–65. New York: Kluwer Academic Publishers, 2002. https://doi.org/10.1007/0-306-47099-3_23.
- Pliny the Elder. *The Natural History*. Translated by John Bostock and H. T. Riley. London: George Bell & Sons, 1893.
- Pradell, Trinitat, Nativitat Salvado, Gareth D. Hatton, and Michael S. Tite. "Physical Processes Involved in Production of the Ancient Pigment, Egyptian Blue." *Journal of the American Ceramic Society* 89, no. 4 (2006): 1426–31. <https://doi.org/10.1111/j.1551-2916.2005.00904.x>.
- Schäffer, Christopher, ed. *Connecting the Ancient World: Mediterranean Shipping, Maritime Networks and their Impact*. Rahden/Westf. : Verlag Marie Leidorf, 2016.
- Scott, David A. "A Review of Ancient Egyptian Pigments and Cosmetics." *Studies in Conservation* 61, no. 4 (2016): 185–202. <https://doi.org/10.1179/2047058414Y.0000000162>.
- Svoboda, Marie, and Marc Walton. "Material Investigations of the J. Paul Getty Museum's Red-Shroud Mummy." In *Decorated Surfaces on Ancient Egyptian Objects: Technology, Deterioration, and Conservation*, edited by Julie Wright Dawson, Christina Rozeik, Margot M. Wright, and Lisa Bruno, pp. 148–55. London: Archetype, 2010.
- Theophrastus. *De Lapidibus*. Translated by D. E. Eichholz. Oxford: Clarendon Press, 1965.
- Vitruvius. *On Architecture*. Translated by Richard V. Schofield. London: Penguin Books, 2009, esp. pp. 209–17.

Using Color

- Aristotle. *On Colours*. In *Minor Works*. Translated by W. S. Hett. Loeb Classical Library 307. Cambridge: Harvard University Press, 1936.
- Ball, Philip. *Bright Earth: Art and the Invention of Color*. New York: Farrar, Straus & Giroux, 2001.
- Bradley, Mark. *Colour and Meaning in Ancient Rome*. Cambridge Classical Studies; Variation: Cambridge Classical Studies. Cambridge and New York: Cambridge University Press, 2009.
- Brinkmann, Vinzenz, Ulrike Koch-Brinkmann, and Renée Dreyfus, eds. *Gods in Color: Polychromy in the Ancient World*. San Francisco: Fine Arts Museums of San Francisco, 2017.
- Eastaugh, Nicholas. *The Pigment Compendium: A Dictionary of Historical Pigments*. Amsterdam and Boston: Elsevier Butterworth-Heinemann, 2004.
- Edmondson, J. C., and Keith Alison. *Roman Dress and the Fabrics of Roman Culture*. Toronto and Buffalo: University of Toronto Press, 2008.
- Gage, John. *Color and Culture: Practice and Meaning from Antiquity to Abstraction*. Boston: Little, Brown & Company, 1993.
- Goldman, Rachael. "Plautus' and Terence's Colorful Pimps and Slaves." In *Essays in Global Color History: Interpreting the Ancient Spectrum*, edited by Rachael Goldman, pp. 163–74. Gorgias Studies in Classical and Late Antiquity 19. Piscataway: Gorgias Press, 2016.
- Østergaard, Jan Stubbe, and Anne Marie Nielsen, eds. *Transformations: Classical Sculpture in Colour*. Copenhagen: Ny Carlsberg Glyptotek, 2014.
- Pastoureau, Michel. *Black: The History of a Color*. Translated by Jody Gladding. Princeton: Princeton University Press, 2009.
- . *Blue: The History of a Color*. Translated by Jody Gladding. Princeton: Princeton University Press, 2001.
- . *Green: The History of a Color*. Translated by Jody Gladding. Princeton: Princeton University Press, 2014.
- . *Red: The History of a Color*. Translated by Jody Gladding. Princeton: Princeton University Press, 2017.
- Pliny the Elder. Book 35 of *Natural History IX, Libri 33–35*. Translated by Harris Rackham. Loeb Classical Library 394. Cambridge: Harvard University Press, 1952.
- Reinhold, Meyer. *History of Purple as a Status Symbol in Antiquity*. Collection Latomus 116. Brussels: Latomus, 1970.

Reitzenstein, Denise. "Colors and Clothing in Artemidoros' Dream Visions." In *Essays in Global Color History: Interpreting the Ancient Spectrum*, edited by Rachael Goldman, pp. 175–89. Gorgias Studies in Classical and Late Antiquity 19. Piscataway: Gorgias Press, 2016.

Seneca. Book 1.3–15 of *Natural Questions, Volume I: Books 1–3*. Translated by Thomas H. Corcoran. Loeb Classical Library 450. Cambridge: Harvard University Press, 1971.

Stager, Jennifer M. S. "The Materiality of Color in Ancient Mediterranean Art." In *Essays in Global Color History: Interpreting the Ancient Spectrum*, edited by Rachael Goldman, pp. 97–120. Gorgias Studies in Classical and Late Antiquity 19. Piscataway: Gorgias Press, 2016.

Vitruvius. Book 7 of *On Architecture, Vol. II: Books 6–10*. Translated by F. S. Granger. Loeb Classical Library 280. Cambridge: Harvard University Press, 1934.

Wierzbicka, Anna. "The Meaning of Color Terms: Semantics, Culture, and Cognition." *Cognitive Linguistics* 1, no. 1 (1990): 99–150. <https://doi.org/10.1515/cogl.1990.1.1.99>.

Investigating Color

Abbe, Mark. "Recent Research on the Painting and Gilding of Roman Marble Statuary at Aphrodisias." In *Circumlitio: The Polychromy of Antique and Mediaeval Sculpture*, edited by Vinzenz Brinkmann, Max Hollein, and Oliver Primavesi, pp. 277–89. Schriftenreihe Der Liebieghaus Skulpturensammlung. Munich: Hirmer, 2010.

Agnoli, Francesca, Irene Calliari, and Gian-Antonio Mazzocchin. "Use of Different Spectroscopic Techniques in the Analysis of Roman Age Wall Paintings." *Annali di chimica* 97 (2007): 1–7. <https://doi.org/10.1002/adic.200690093>.

Amadori, Maria Letizia, Sara Barcelli, Gianluca Poldi, F. Ferrucci, Alessia Andreotti, Pietro Baraldi, and Maria Perla Colombini. "Invasive and Non-Invasive Analyses for Knowledge and Conservation of Roman Wall Paintings of the Villa of the Papyri in Herculaneum." *Microchemical Journal* 118 (2015): 183–92. <https://doi.org/10.1016/j.microc.2014.08.016>.

Baldia, Christel M., and Kathryn A. Jakes. "Photographic Methods to Detect Colourants in Archaeological Textiles." *Journal of Archaeological Science* 34, no. 4 (2007): 519–25. <https://doi.org/10.1016/j.jas.2006.06.010>.

Brinkmann, Vinzenz, Max Hollein, and Oliver Primavesi, eds. *Circumlitio: The Polychromy of Antique and Mediaeval Sculpture*. Munich: Hirmer, 2010.

Chiari, Giacomo. "Visible Induced Luminescence of Egyptian Blue: Innovative Procedures." Paper read at Art 2011, the 10th International Conference on Non-Destructive Investigations and Microanalysis for the Diagnostics and Conservation of Cultural and Environmental Heritage, held at Florence, Italy, 13–15 April 2011.

Clark, R. J. H. "The Scientific Investigation of Artwork and Archaeological Artefacts: Raman Microscopy as a Structural, Analytical and Forensic Tool." *Applied Physics A* 89 (2007): 833–40.

- Comelli, Daniela, Austin Nevin, Davide Gulotta, Lucia Toniolo, Gianluca Valentini, and Rinaldo Cubeddu. "Integrated Hyperspectral and Time Resolved Fluorescence Imaging Combined with Statistical Data Analysis: Diagnostic Investigations of Wall Paintings." Paper read at Art 2008, the 9th International Conference on Non-Destructive Investigations and Microanalysis for the Diagnostics and Conservation of Cultural and Environmental Heritage, held at Jerusalem, Israel, 25–30 May 2008.
- Cosentino, Antonino. "Identification of Pigments by Multispectral Imaging; a Flowchart Method." *Heritage Science* 2, no. 8 (2014): 1–12. <https://doi.org/10.1186/2050-7445-2-8>.
- Delaney, John K., Elizabeth Walmsley, Barbara H. Berrie, and Colin F. Fletcher. "Multispectral Imaging of Paintings in the Infrared to Detect and Map Blue Pigments." In *Scientific Examination of Art: Modern Techniques in Conservation and Analysis*, edited by National Academy of Sciences (U.S.), pp. 120–36. Washington, DC: National Academy of Sciences, 2003.
- Dyer, Joanne, Elisabeth R. O'Connell, and Antony Simpson. "Polychromy in Roman Egypt: A Study of a Limestone Sculpture of the Egyptian God Horus." In *The British Museum Technical Research Bulletin, Volume 8*, edited by David Saunders, pp. 93–103. London: Archetype, 2014.
- Ganio, Monica, Johanna Salvant, Jane Williams, Lynn Lee, Oliver Cossairt, and Marc Walton. "Investigating the Use of Egyptian Blue in Roman Egyptian Portraits and Panels from Tebtunis, Egypt." *Applied Physics A* 121, no. 3 (2015): 813–21. <https://doi.org/10.1007/s00339-015-9424-5>.
- Garofano, Isabel, Jose Luis Perez-Rodriguez, Maria Dolores Robador, and Adrian Duran. "An Innovative Combination of Non-Invasive UV–Visible-Fors, XRD and XRF Techniques to Study Roman Wall Paintings from Seville, Spain." *Journal of Cultural Heritage* 22 (2016): 1028–39. <https://doi.org/10.1016/j.culher.2016.07.002>.
- Genestar, Catalina, and C. Pons. "Earth Pigments in Painting: Characterisation and Differentiation by Means of FTIR Spectroscopy and SEM-EDS Microanalysis." *Analytical and Bioanalytical Chemistry* 382, no. 2 (2005): 269–74. <https://doi.org/10.1007/s00216-005-3085-8>.
- Giachi, Gianna, E. De Carolis, and Pasquino Pallecchi. "Raw Materials in Pompeian Paintings: Characterization of Some Colors from the Archaeological Site." *Materials and Manufacturing Processes* 24, no. 9 (2009): 1015–22. <https://doi.org/10.1080/10426910902982631>.
- Kakoulli, Ioanna, Roxanne Radpour, Yuan Lin, Marie Svoboda, and Christian Fischer. "Application of Forensic Photography for the Detection and Mapping of Egyptian Blue and Madder Lake in Hellenistic Polychrome Terracottas Based on Their Photophysical Properties." *Dyes and Pigments* 136 (2017): 104–15. <https://doi.org/10.1016/j.dyepig.2016.08.030>.
- Leona, Marco. "The Materiality of Art: Scientific Research in Art History and Art Conservation at the Metropolitan Museum." *The Metropolitan Museum of Art Bulletin* 67, no. 1 (2009): 4–11.
- Liang, Haida. "Advances in Multispectral and Hyperspectral Imaging for Archaeology and Art Conservation." *Applied Physics A* 106, no. 2 (2012): 309–23. <https://doi.org/10.1007/s00339-011-6689-1>.
- Mazzocchin, Gian-Antonio, Alvise Vianello, Silvia Minghelli, and Danilo Rudello. "Analysis of Roman Wall Paintings from the Thermae of 'Iulia Concordia.'" *Archaeometry* 52, no. 4 (2010): 644–55. <https://doi.org/10.1111/j.1475-4754.2009.00501.x>.

- Scott, David A., Megan Dennis, Narayan Khandekar, Joy Keeney, David Carson, and Lynn Swartz Dodd. "An Egyptian Cartonnage of the Graeco-Roman Period: Examination and Discoveries." *Studies in Conservation* 48, no. 1 (2003): 41–56.
- Verri, Giovanni. "The Spatially Resolved Characterisation of Egyptian Blue, Han Blue and Han Purple by Photo-Induced Luminescence Digital Imaging." *Analytical and Bioanalytical Chemistry* 394, no. 4 (2009): 1011–21. <https://doi.org/10.1007/s00216-009-2693-0>.
- Verri, Giovanni, David Saunders, Janet Ambers, and Tracey Sweek. "Digital Mapping of Egyptian Blue: Conservation Implications." Paper given at the 2010 International Institute for Conservation Congress, Conservation and the Eastern Mediterranean Istanbul, Turkey, September 20–24, 2010.
- Walton, Marc S., and Karen Trentelman. "Romano-Egyptian Red Lead Pigment: A Subsidiary Commodity of Spanish Silver Mining and Refinement." *Archaeometry* 51, no. 5 (2009): 845–60. <https://doi.org/10.1111/j.1475-4754.2008.00440.x>.