East Midlands Geological Society

Spring Lectures 2026

President's evening

Saturday 14th February 2026, 6.00 - 7.00pm

Mineralogy in art

Dr Chris Duffin

Scientific Associate, Natural History Museum, London

https://commons.wikimedia.org/wiki/File:Pech_Merle_main.jpg

Venue: School of Geography, Sir Clive Granger Building, University of Nottingham, University Park, Nottingham, NG7 2RD *Google Maps*

www.emgs.org.uk

Dr Chris Duffin *is a Scientific Associate at The Natural History Museum, London, and an author on topics including palaeontology and the history of medicine*

Abstract: This talk focuses on the geological materials used in painting. Earth pigments include a range of phyllosilicates and weathering products, usually referred to as ochres, primarily used to provide light earth tones. The hydrated copper carbonates malachite and azurite were the sources of green and blue pigments respectively, while the intense blue of ultramarine was derived from the lazurite in lapis lazuli. Cinnabar, orpiment and realgar contributed reds and oranges to the mineralogical palette, while gold and silver leaf were used to produce sumptuous highlighting to more expensive works of art. Geological pigments were used extensively from the earliest cave paintings to the mid-eighteenth century when synthetic colours began to dominate the artists' palette. We will look at some of the historical sources of the pigments, the processing required to make them functional, and many examples of their uses. Hopefully, your next visit to an art gallery will allow you to observe favourite paintings with new eyes through a geological lens.

Cover Image: Female 'signature' handprint in red ochre at Pech Merle Cave, France, estimated to be 20,000 years old. https://commons.wikimedia.org/wiki/File:Pech_Merle_main.jpg