

Summary Write Up of the DGAG Talk Tuesday 21 Jan 2025
The Art of Sand from the Isle of Wight to Iowa: Part 1: Isle of Wight

Speaker: Phil James

The talk was, as anticipated, a wonderful mix of geology and the history of a special type of art and was thoroughly enjoyed by 20 attendees, including the speaker! Although we cannot reproduce entirely the talk, the speaker has been very generous and will supply some notes and references that will be available after Part 2 Talk scheduled for 18th March. The many questions after the talk showed a high level of interest, indeed, including one question he could not answer during the talk (Appendix 1. below in this note). All this material is on the DGAG website as PDF documents to assist in education and future reference.

Below are a few random short notes on aspects I found particularly interesting (there was much more of interest). It is suggested that readers refer to the speaker if anything more in-depth is required.

Phil gave us a useful and necessary introduction to early geological mapping pioneers in this area of the Isle of Wight, mostly during the 1800's (Georgian/Victorian age) in the main. In particular the earlier pioneer and wonderfully named Gideon Mantell and his "Geological Excursions round the Isle of Wight". Also the excellent early work by Thomas Webster and noted his early depiction of what they called at the time "Stare Cove" but now known as Stair Hole and the Lulworth Crumple on the Dorset coast.

The geology once mapped out and analysed over many decades allowed an outline tectonic history to be pieced together in the 20th and 21st Century. Most of the sub-vertical layering structure associated with Alum bay coloured "sand" layers is now viewed as a small part of the Europe plate caught up on the north edge of the mega-collision zone in front of the northward moving Africa plate. This mountain building event took place over several 10s of million years in the Tertiary period and continues to the present day. The actual uplift and tilting seen in Alum bay seems to be mainly of Miocene age (10-20 million years ago). The beds of interest were deposited during the Early-Mid Eocene age (48-42 million years ago) before the collision deformation. The end result of all these processes of deposition, deformation, uplift, weathering and erosion is the stupendous multicoloured layers at Alum bay. They are called the Brakelsham and Bagshot beds with various combinations of 4 basic colours. Reds (Haematite - iron oxide); Greens - (Glauconite - Iron Potassium Phyllosilicate); Black - (Carbon from plant material); and Yellows/Browns - (Limonite - Hydrated Iron Oxide). The various proportions of these in each layer gives a spectrum of 21 coloured sands so attractive to artists and admirers alike. The younger Upper Barton pure white sand was ideal for glass making and was quarried during the eighteenth and early nineteenth century.

There was very interesting review of how the demand grew for quality art work both sand pictures and coloured sand bells, sought by the various high profile people (with disposable income!) that began to settle in the Isle of Wight: to name a few Queen Victoria, various poets e.g. Tennyson and Keats, and others like Darwin, Dickens & Lewis Carroll. Subsequently with advent of mass tourism more demand was created. Phil showed us his detective skills and modern internet resources with examples of tracking down the various historical figures occupations and places of abode.

W.Carpenter had interesting (Harry Potter style!) business address of 60^{1/2} High Street, Southampton. The best coloured sand glass bells in the Isle of Wight were made by William Carpenter (or perhaps Mary!). There were many makers of various quality but few of the best ones survive and therefore command auction prices of £100-£500. In comparison to the US examples (the subject of the March talk) that command prices up to 1000 times that and more!

The meeting concluded after the scheduled finish time as the entertaining discussions continued.

Next DGAG talk is scheduled for 18th February 2025 at the same venue,
Title: America - West of the Rockies, speaker Martin Gledhill

Part 2 of this art of sand talk is scheduled for 18th March 2025.
Title: The Art of Sand from the Isle of Wight to Iowa: Part 2: Iowa

More speakers are required for other talk slots later in 2025, any topic loosely connected to the Earth and science will be considered, we like variety! Please check all your networks for a speaker and let me know contact details.

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Additional Links:

1. Isle of Wight: Alum Bay –colourful photos
<https://www.theneedles.co.uk/landmarks/alum-bay/>

2. Excellent must read for all geologists and explorers of this area of the world
<https://wessexcoastgeology.soton.ac.uk/Alum-Bay.htm>

Appendix 1

Questions answered by Phil after the talk

Q1 “Where is J M W Turner’s 1795 painting of Alum Bay”

The painting is in the Tate Gallery - <https://www.tate.org.uk/art/artworks/turner-alum-bay-isle-of-wight-d00449>