



HARROW & HILLINGDON GEOLOGICAL SOCIETY

A Local Group of the Geologists' Association

Founded 1973

www.hhgs.org.uk

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Lecture Series 2025

Non-members, please register by email: contact@hhgs.org.uk

Wednesday 12th February 2025 at 8pm on Zoom

“The Layman’s Guide to Sedimentary Structures”

by Prof Jon Noad (Stantec Consulting, University of Adelaide)

Sedimentary Structures are the products of physical, chemical and biological processes. Their diverse character is determined by the combination of processes acting upon the sediment as well as by sediment composition. These processes may include currents, water depth, climate, available accommodation space. Particular combinations will drive the depositional character, so by analyzing the resulting sedimentary structures, these can be used to build palaeo-environmental reconstructions, particularly when combined with palaeontological, composition and textural features. Both modern and ancient analogues should be employed to hone these interpretations.



Beginning with the basics, this lecture will demonstrate how to recognize sedimentary features in the field, how to classify them, how to use them to define lithofacies and then to use the lithofacies to interpret the depositional setting – determining terrestrial versus marine settings, energy levels during deposition, water depths, orientations and palaeo-currents.

We will look at the impact of flow, erosional and depositional structures, the impact of grain size, chemical precipitation and structures formed by deformation, including trace fossils.

A series of fun case studies will be presented to make sure that this is less of a lecture and more of a CSI forensic, sedimentological investigation i.e. Carbonate/Clastic Sedimentary Structure Investigation. By the end of the evening, you should feel more confident about identifying sedimentary structures and piecing together what they signify in terms of depositional setting.



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Jon Noad grew up in Ickenham and joined the HHGS when he was 12.

He graduated in 1985 and started working as a mining geologist in South Africa, then returned to the UK to work in marine cable laying and completed a Masters in Sedimentology at evening classes. This led to a full time PhD, working in eastern Borneo, after which he joined Shell International working Middle East exploration and in several production roles. He moved to Shell Canada in Calgary in 2006 after which he took senior geoscience roles at Murphy, Husky and Gran Tierra (Colombia).

Jon started a consultancy in 2017 and has run more than 50 field trips and courses for industry as well as teaching at several universities. He joined Stantec as a qualified Palaeontologist in 2022 and now undertakes site monitoring for new pipelines and construction projects.

