

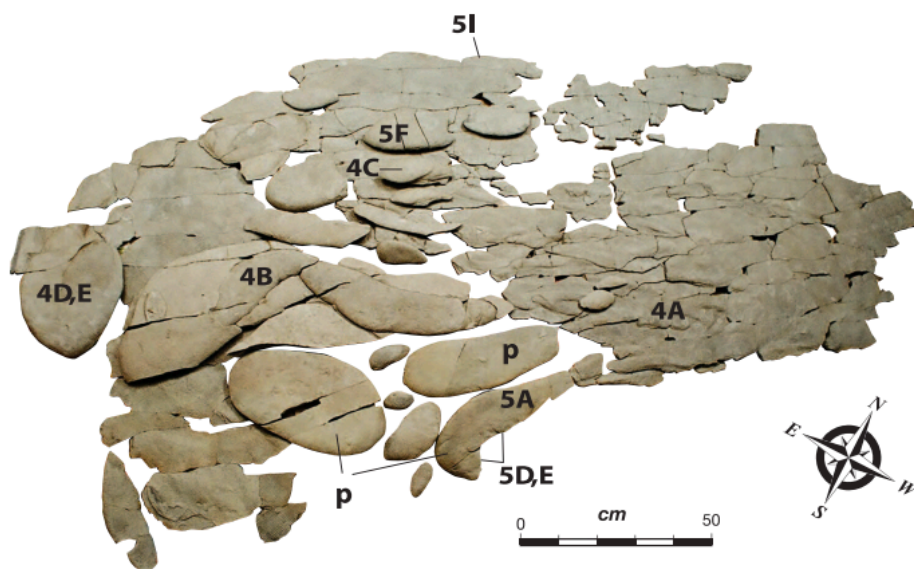
Rolling Rocks

Today's Colloquium

Today's colloquium will be held at 3:30 pm in Braunstein 201. The colloquium will be By Dr. Richard Lease of the USGS. His talk is titled: "Erosion patterns during growth and glaciation of the Alaska Range". This will be followed by refreshments in the Rug Room.

New Paper

Congratulations to Dave and Carl on publishing a paper on this very strange fossil:



PALAIOS, 2016, v. 31, 453-462
Research Article
DOI: <http://dx.doi.org/10.2110/palo.2016.028>



INVERTED TRILOBITES: KEY TO COMPLEX PRESERVATION OF AN ORGANICALLY TEXTURED SURFACE IN OFFSHORE SILICICLASTIC MUDSTONE AND CARBONATE FACIES: KOPE FORMATION (UPPER ORDOVICIAN), KENTON COUNTY, KENTUCKY, USA

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ABSTRACT: Unusual preservation of small primaspid trilobites may provide a key to interpretation of an enigmatic, apparently organically textured surface or sedimentary structure in the subtidal Upper Ordovician (Katian) Kope Formation of northern Kentucky. A thin, elliptical lens of silty mudstone in the lower Kope Formation (Pioneer Valley submember, Southgate Member, C-1 Sequence) has several unique features mainly present on its basal surface, as a hyporelief, but also to a limited extent on the upper surface. Toward one end, the basal surface has sinuous fluting that terminates at the other end in a complex of conjoined, flattened, ellipsoidal or spatulate lobes that is partly overlain by an outlier of the primary lens. The basal surface has small-scale corrugations (3 to 4 mm wide) and polygonal reticulation variably developed. Articulated exoskeletons of small, spinose primaspid trilobites [*Primaspis crosotus* (Locke)] occur mostly with their ventral surfaces applied directly to the textured surfaces (i.e., dorsal side down). On some lobes the reticulate texturing wraps around from the basal to the upper surface and is covered with minute rounded pustules (~0.3 mm). These enigmatic features are interpreted either as a recumbent microbial mat or an erect three-dimensional organism that was smothered and infilled by influx of silty sediment, preserved ultimately as a mold in hyporelief with trilobites in life position. Evidence for similar organic structures has not been previously reported from the Kope Formation. The taphonomic processes responsible for their preservation carry paleoenvironmental implications for possible microbial or macroalgal biotas within photic depths, and complex mediation of episodic depositional processes by organic biofilms or tissues.

New Book Chapter

Congratulations to Carl, Andrew and Arnie on their book chapter:

Brett, C.E., Zaffos, A., and Miller, A.I., 2016. Niche conservatism, tracking and ecological stasis.p. 282-306. In. Eldredge, N., Pievani, T., Serrelli, E., and Temkin, I., eds., *Evolutionary Theory: A Hierarchical Perspective*. University of Chicago Press, 385 p.p

Tea Time

Back by popular demand Tea@3 has begin once more, starting on yesterday at 3pm in the museum. For those who have not attended before, please bring yourself and a mug. Tea will be provided. If you are a hot beverage snob, feel free to bring your own tea/coffee!

Allison Young

Congratulations to Allison Young for having her paper selected by the Eastern Section of the American Association of Petroleum Geologists for the Margaret Hawn Mirabile Memorial Best Student Paper award. Her paper is titled “Late Ordovician (Katian) Upper Lexington-Kope Equivalents in the Point Pleasant Basin of Eastern Ohio: Correlation and Paleoenvironments of the Utica Point Pleasant System,” and was presented at the AAPG Eastern Section Meeting in Lexington. This award was established by AAPG in 1986 to recognize the best student poster presented at each Eastern Section meeting annually. She will receive a plaque in recognition at the upcoming 2017 awards presentations at the Eastern Section meeting. Her co-authors, were Carlton Brett, Peter Holterhoff, Thomas Algeo and Patrick McLaughlin.

Tim been busy

Tim Paton had a very successful two weeks in Ontario working on the National Geographic funded project on intact, buried fossil hard substrate communities. Despite cool temperatures, and even snow, a series of successive mass burial horizons, each with intact invertebrate organisms (crinoids, starfish, trilobites and many others), some of them still attached where they lived, were painstakingly excavated and documented bed-by-bed. Tim was also able to do video “fly overs” of the successive bedding planes to document the intricate microtopographies of their surfaces and distribution of the organisms. Evidently, these offshore communities were positioned such that they were engulfed, repeatedly by thick widespread mud blankets, following major storms. These will prove extraordinary detail on ecology, life modes and distribution patterns of ancient organisms.

Please don't forget to send me your news.

Cheers,

Lewis