Dating a near eastern desert hunting trap (kite) using rock surface luminescence dating -
DTU Orbit (23/10/2019)

This study reports the first radiometric dating applied to kite stone structure in Jordan using rock surface luminescence
dating to three rock samples collected from the Jibal al-Gadiwiyt kite structure in the south east of Jordan. The sampling
location, part of the kite enclosure, is in the form of a 125-cm-deep hole lined with long slabs at the base and with stacked
cobbles above. The pit had been back-filled by natural sediment deposition after abandonment. Three rock samples were
collected from the site, and three sediment samples were taken in close association with two of the rocks. Using quartz
fast-component-dominated OSL signals, it proved possible to define a rock burial age of ~10 ka by examining the profile
of luminescence with depth into the rock surfaces. Various light exposure events (including the most recent following
archeological excavation) could also be identified. The direct radiometric dating of this kite argues for a construction ~10
ka ago, with no evidence for use beyond ~1 ka after building.

General information
Publication status: Published
Organisations: Center for Nuclear Technologies, Radiation Physics, Al-Hussein Bin Talal University, Aarhus University,
Yarmouk University, Maison de l'Orient et de la Méditerranée
Corresponding author: al Khasawneh, S.
Contributors: al Khasawneh, S., Murray, A. S., Thomsen, K. J., AbuAzizeh, W., Tarawneh, M.
Pages: 2109-2119
Publication date: 2019
Peer-reviewed: Yes

Publication information
Journal: Archaeological and Anthropological Sciences
Volume: 11
Issue number: 5
ISSN (Print): 1866-9557
Ratings:
Web of Science (2019): Indexed yes
Original language: English
Keywords: Desert kites, Jibal al-Gadiwiyt kite, Jordan, Luminescence rock surface dating technique, Neolithic
Electronic versions:
AASC_D_18_00005_R1_submitted.pdf. Embargo ended: 11/06/2019
DOIs:
10.1007/s12520-018-0661-3
Source: FindIt
Source ID: 2435447015
Research output: Contribution to journal › Journal article – Annual report year: 2019 › Research › peer-review