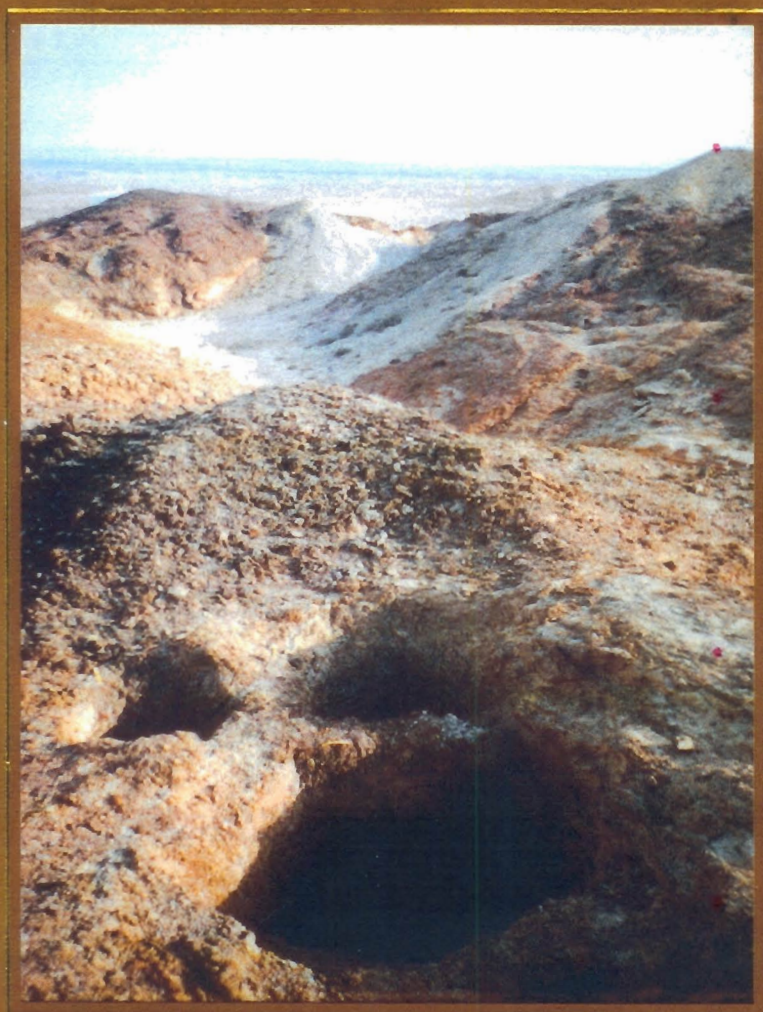


SULPHUR, CAMELS AND GUNPOWDER

THE SULPHUR MINES AT JEBEL DHANNA
ABU DHABI, UNITED ARAB EMIRATES

An archaeological site of the late Islamic period



Edited by G.R.D. King

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With contributions by D. Hull, S. Rowland, P. Hellyer,
S.J. Aspinall, M.J. Beech, R.A. Carter and G.R.D. King



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RADIOCARBON DATING

M.J. Beech, D. Hull and S. Rowland

Three charcoal samples were collected from hearths during the excavation of structures DH 1.1 and DH 22.2, and were subjected to radiocarbon dating after the 2001 season. The samples were dated by the Scottish Universities Research and Reactor Centre (SURRC) at the University of Glasgow, in conjunction with the University of Arizona AMS facility. The results of this analysis are presented in Table 8. Radiocarbon calibration was made using the OxCal v.3.5 programme. Calibrated radiocarbon dates are calculated using the atmospheric calibration curve and 2-sigma values (95.4% probability). Figures in brackets in between the calibrated radiocarbon dates indicate the relative area under the probability distribution. The radiocarbon dating suggests a likely range of dates from the mid-17th to 19th century AD. There is only a 13.9 – 16.2% probability that the dates may fall in the early part of the 20th century.

SITE CODE	SAMPLE REFERENCE	TYPE OF SAMPLE	RADIO-CARBON AGE BP	LAB CODE	CALIBRATED RADIOCARBON DATE BC (2 sigma)	CALIBRATION METHOD	DELTA 13C REL. PDB	SAMPLE TAKEN BY
DH 1.1	Sample 66	Sand/ Charcoal	170 +/- 40	AA-48047 (GU-9775)	1650 AD (79.2%) 1890 AD 1910 AD (16.2%) 1960 AD	OxCal 3.5 Stuiver <i>et al.</i> 1998a,b	- 22.4 ‰	Dan Hull/ Stephen Rowland
DH 22.2	Sample 71a	Sand/ Charcoal	190 +/- 50	AA-48048 (GU-9776)	1640 AD (80.7%) 1890 AD 1910 AD (14.7%) 1960 AD	OxCal 3.5 Stuiver <i>et al.</i> 1998a,b	- 16.1 ‰	Dan Hull/ Stephen Rowland
DH 22.2	Sample 71b	Sand/ Charcoal	205 +/- 40	AA-48049 (GU-9777)	1630 AD (27.3 %) 1700 AD 1720 AD (50.4 %) 1820 AD 1830 AD (3.9 %) 1880 AD 1910 AD (13.9 %) 1960 AD	OxCal 3.5 Stuiver <i>et al.</i> 1998a,b	- 21.5 ‰	Dan Hull/ Stephen Rowland

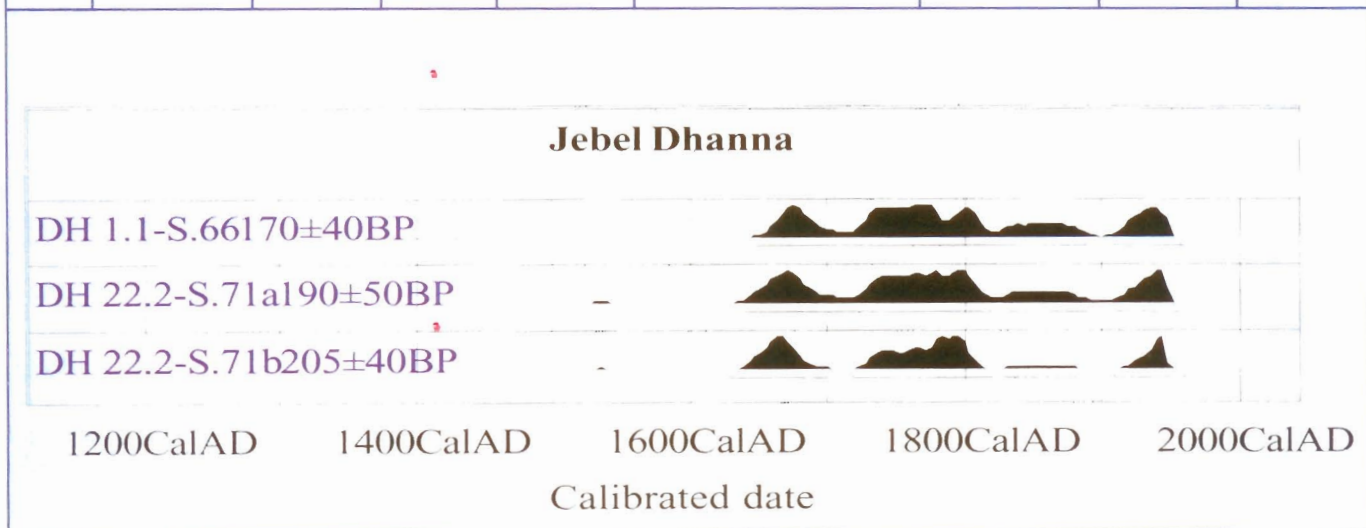


Table 8: The Jebel Dhanna radiocarbon results (BP = Before Present).

Atmospheric data from Stuiver *et al.* (1998); OxCal v3.5 Bronk Ramsey (2000); cub r:1 sd:2 prob usp lchron