



ABDELRAHIM M. KHABIR

## RADIOCARBON DATES OF ISLANG2 AND NOFALAB2 NEOLITHIC SITES IN KHARTOUM PROVINCE, SUDAN

This paper reports on the C-14 results of four radiocarbon dates derived from two Neolithic sites in Khartoum Province, namely Islang2 (15° 53' N, 32° 32' E) and Nofalab2 (15° 52' N, 32° 32' E) (Fig. 1).

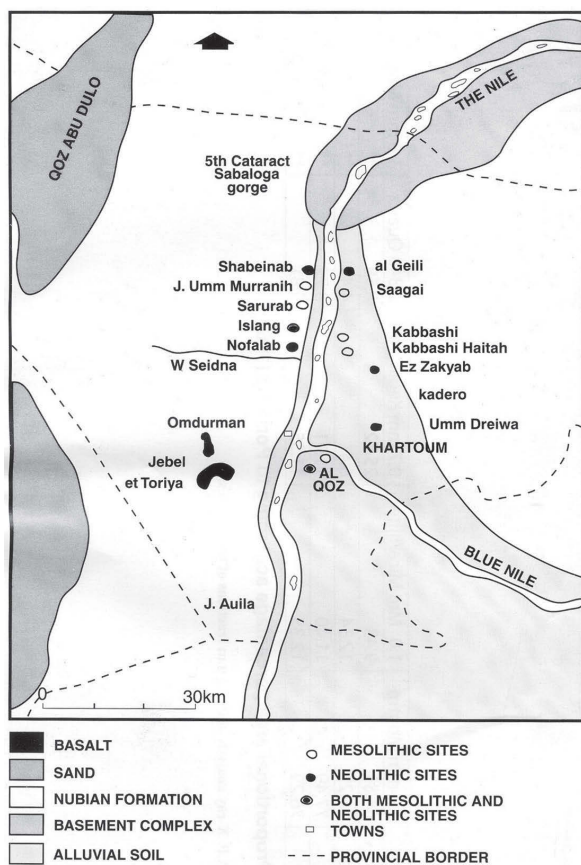


Abb. 1 *Distribution of Mesolithic and Neolithic Sites in Khartoum Province, in relation to the geological formations (after Mohamed Ali, A.S. 1982: 39 with some modifications)*

The two sites were test-excavated by the present writer during July–August 1990 as a part of his Ph.D. research awarded by the University of Southampton, England in 1995. The cultural material recovered labeled 'Islang2' and 'Nofalab2' to distinguish it from El-Anwar's earlier work at these localities (El-Anwar 1981: 42-45 and 1982).

### 1. ISLANG2

The site is located some 28 km north of Omdur-

man on the west bank of the Nile. It is situated on a gravel ridge at c. 394 m above the sea level and it lies two kilometers inland on an ancient Nile bank. The site is at present a small one covering 10 × 20 m on E–W. line. It might have occupied much larger area in the past than it is now. A total area of 200 m<sup>2</sup> was excavated. It was previously excavated by El-Sayed E. Anwar (c. 496 m<sup>2</sup>) (El-Anwar 1982: 21). The excavated units yielded material culture down to a depth of 50 cm in most places and exceeding that depth (c. 60 cm) in rare instances.

### 1.1 Archaeological Finds

The site yielded considerable amounts of archaeological remains. The pottery was found only in the form of sherds (n = 1312). Zigzag is the most favorite motif. Further frequent motifs include triangles with dots, dotted lines, triangles, incised, combed, scraped, semicircular panels, impressed straight lines and slanting serration ... surfaces are mostly burnished (Fig 2). The lithic industry is represented

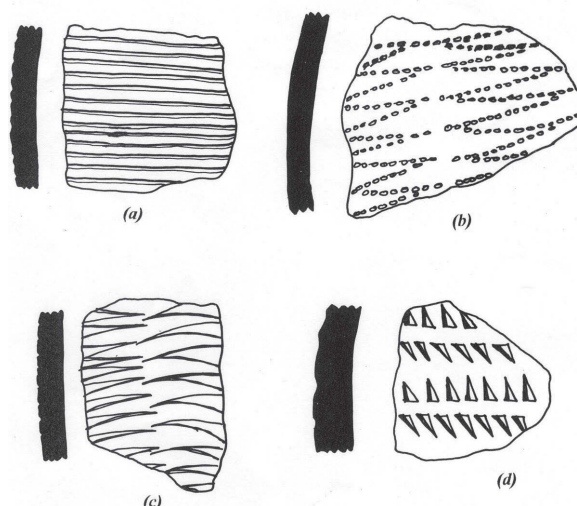


Abb. 2 *Islang2 Pottery (Scale 1:2)*

with a microlithic flake. Ground implements were recorded. Mollusca finds and bone remains in fragmented condition have been recorded and have not as yet been identified.

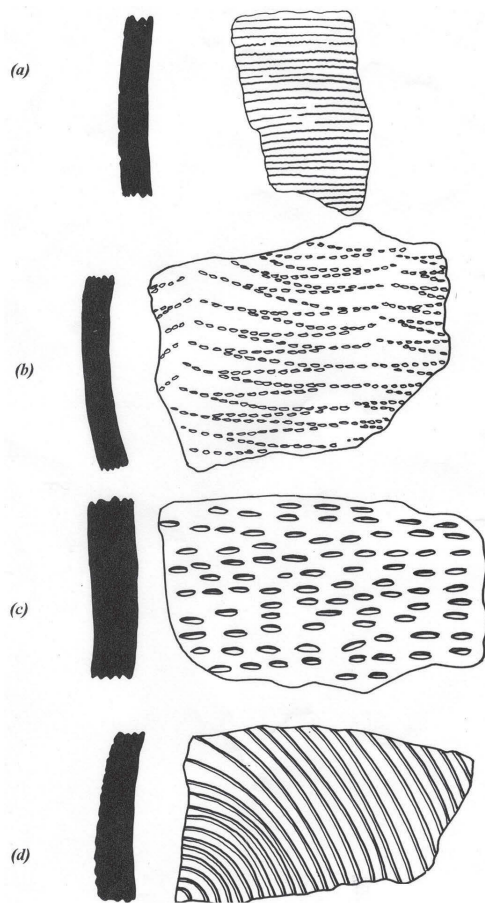


Abb. 3 Nofalab2 Pottery (Scale 1:2)

### 1.2 Dating

Two calibrated radiocarbon dates were reported from this site (Table 1, Figs. 4–5). The oldest (based on shell) is  $4490 \pm 150$  B.C. (SMU – 2575), being derived from square (1) AL3 (30 cm below the present day surface). The youngest (based on charcoal) is  $4330 \pm 90$  B.C. (SMU – 2565), being obtained from square (3, 4) EL2 (20 cm below the present day surface). It is worth noting that a radiocarbon date of  $4706 \pm 170$  B.C. (T-3880) was previously obtained for the same site labeled as Islang (see El-Anwar 1981: 44). The artifacts reported in full association with the radiocarbon producing levels comprising various types of pottery mainly rocker-stamped, retouched tools and stone grinders.

### 2. NOFALAB2

The site is situated on the west bank of the Nile about 26 km north of Omdurman (Fig. 1). The larger portion of the site was previously excavated by El-Sayed El-Anwar (El-Anwar 1981: 42-43 and 1982). The site at present is a small one covering  $70 \times 40$  m and elevated about two meters above the surrounding alluvial plain. Surface finds suggest an estimated occupation of  $1200 \text{ m}^2$ . The largest concentration of

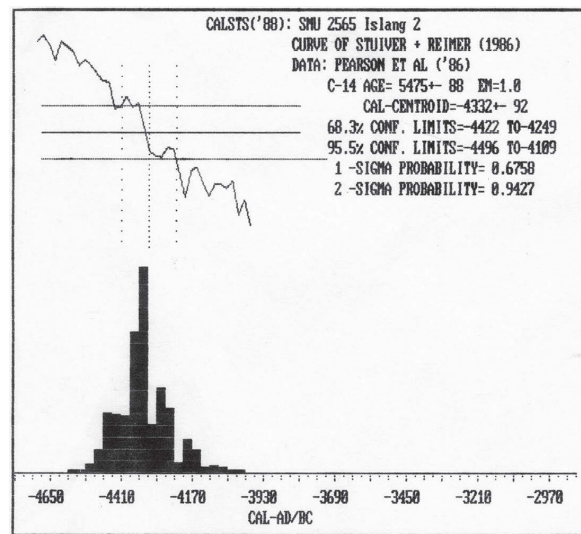


Abb. 4 Islang2 Radiocarbon dating

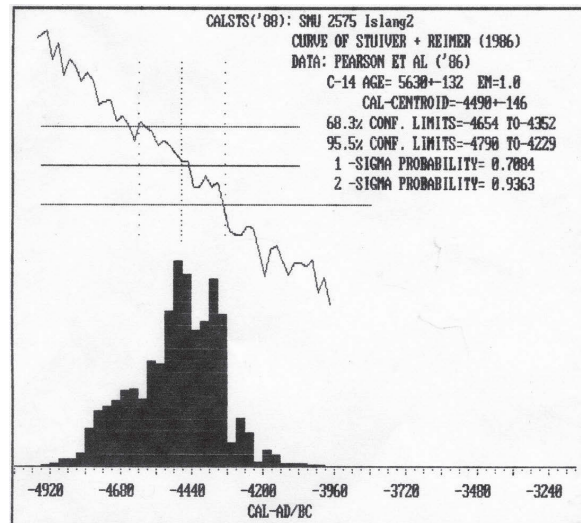


Abb. 5 Islang2 Radiocarbon dating

the material occurred between 20–40 cm below the present day surface. The cultural occupation often reached 70 cm in depth.

### 2.1 Archaeological Finds

The cultural material recovered from Nofalab2 site includes potsherds ( $n = 2981$ ), the majority of which were decorated. Vees and Zigzag decorative motifs are frequent along with incised, impressed, dotted lines, triangles, combed and linear impressions. The black-topped red ware is rare. The pottery is burnished and its fabric sand-tempered (Fig 3). The lithic industry is basically a microlithic flake, blade production is minimal. Grinding implements are abundant. Mollusca remains and considerable quantities of animal bones were encountered in crushed condition and have not yet been identified.



## 2.2 Dating

Two calibrated radiocarbon dates based on charcoal were reported from Nofalab2 site; the oldest is 2830 ± 290 B.C. (SMU-2562) and the youngest is 2705 ± 295 B.C. (SMU-2561) (Table 2, Figs. 6–7). The two dates were obtained from squares (4, 6) L4 (40 cm below the present day surface) and (4, 6) BL3 (30 cm below the present day surface).

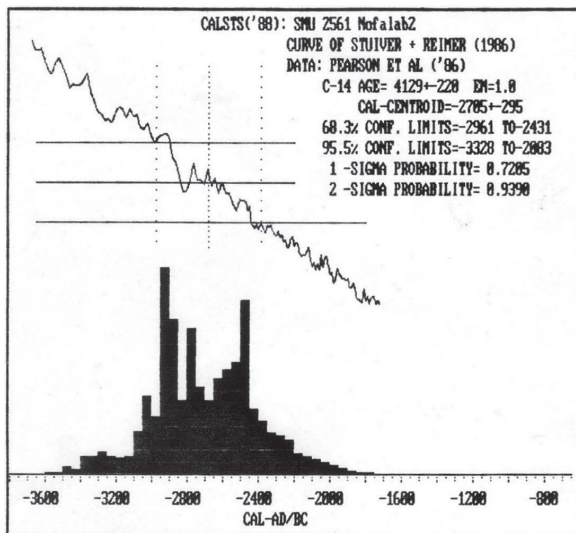


Abb. 6 Nofalab2 Radiocarbon dating

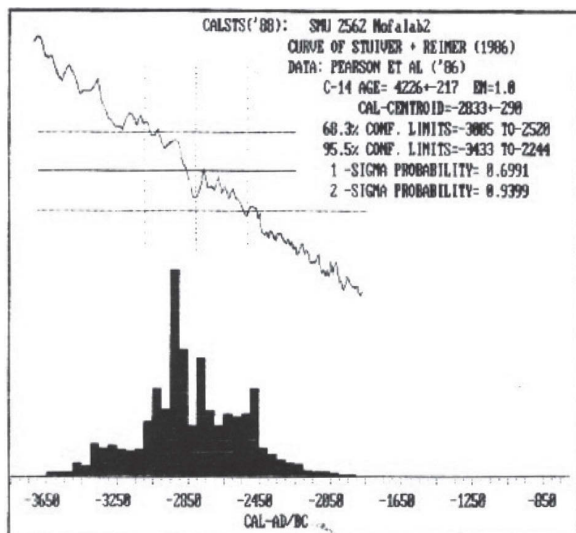


Abb. 7 Nofalab2 Radiocarbon dating

## 3. CONCLUSION

In conclusion the following points can be drawn:

3.1 Unlike the radiocarbon samples of Nofalab2 (see Table 2) in the magnitude of 3<sup>rd</sup> millennium BC. (late Khartoum Neolithic horizon), the samples from Islang2 (Table 1) have provided dates in the range of 5<sup>th</sup> millennium BC. (see supra) all of which are coeval with those obtained for 'Khar-

toum Neolithic Tradition' (see El-Anwar 1981: 42–43; 1982; Hassan 1986: 85 and Haaland 1987: 60–61).

3.2 The pottery corpus of Islang2 and Nofalab2 which is mainly impressed and burnished falls within the norm of "Khartoum Neolithic Tradition" as represented by Esh Shaheinab (cf. Arkell 1953: 68–77, Pls. ~29–33) and related sites. The close affinities in ceramic traits of the three sites (Islang, Nofalab and Esh Shaheinab) seem to confirm this partial synchronism which has already been manifested in the radiocarbon dates obtained.

## ACKNOWLEDGEMENTS

Thanks are due to the department of Archaeology, Khartoum University for allowing me to conduct test-excavations at the Neolithic sites of Islang and Nofalab (part of the University concession). Appreciation goes to Dr. T. Haas of the Southern Methodist University, Radiocarbon Laboratory (Dallas, Texas) for the analyses of the radiocarbon samples submitted.

## BIBLIOGRAPHY

- Arkell, A.J., *Shaheinab*. London: Oxford University Press (1953)
- El-Anwar, S., *Archaeological Excavations on the west bank of the River Nile in Khartoum Area*. Nyame Akuma 18 (1981): 42–45.
- El-Anwar, S., *Khartoum Neolithic in the light of archaeoethnobotany. A Case study from Nofalab and Islang sites*. Unpublished M. A. thesis, University of Khartoum, Sudan (1982)
- Haaland, R., *Socio-Economic Differentiation in the Neolithic Sudan*. Cambridge Monograph in African Archaeology 20 (1987), BAR International Series 350
- Hassan, F.A., *Chronology of the Khartoum 'Mesolithic' and Neolithic' and related sites in the Sudan: statistical comparisons with Egypt*. African Archaeological Review 4 (1986): 83–102.

## ZUSAMMENFASSUNG

Radiokarbonanalysen von zwei archäologische Stätten nördlich von Omdurman brachten Ergebnisse, die bei Nofalab2 in das 3. Jt., bei Islang2 sogar in das 5. Jt. weisen. Die Keramik dieser Sites ist vergleichbar mit Esh Shaheinab und repräsentiert die „Khartoum Neolithic Tradition“.



Table 1: Radiocarbon Dating Certificate: Islang 2 Samples

Sample ID	Sender Ref.	SMU Ref.	Type	Stable isotope Ratio 13/12	Radiocarbon Age uncorrected	Age corrected	Calib. Age
Islang2 sq:(1)A13	Isg. 42	SMU - 2575	Shell	- 4.5	5290 ± 130 B.P.	5630 ± 130 B.P.	4490 ± 150 B.C.
Islang2 sq. (3, 4) EL2	Isg. 48	SMU - 2565	Charcoal	- 25.3	5480 ± 90 B.P.	5475 ± 90 B.P.	4330 ± 90 B.C.

Calibration used: Stuiver and Pearson, Radiocarbon vol. 28. No. IB, 1986.

Computer program used: S.W. Robinson, version 1991. Antiquity 61: 119-35.

Standard used: NBS Oxalic Acid.

Constants used: C-14 half-life = 5568 years, reference age (present) = 1950 AD.

Table 2: Radiocarbon Dating Certificate: Nofalab2 samples

Sample ID	Sender Ref.	SMU Ref.	Type	Stable isotope Ratio 13/12	Radiocarbon Age uncorrected	Age corrected	Calib. Age
Nofalab2 (4, 6) L4	Nof. 60	SMU - 2562	Charcoal	- 27.5	4270 ± 220 B.P.	4230 ± 220 B.P.	2830 ± 290 B.C.
Nofalab2 (4, 6) BL3	Nof. 61	SMU - 2561	Charcoal	- 27.5	4170 ± 220 B.P.	4130 ± 220 B.P.	2705 ± 295 B.C.

Calibration used: Stuiver and Pearson, Radiocarbon vol. 28 No. IB, 1986.

Computer program used: S. W. Robinson, version 1991. Antiquity 61: 119-35.

Standards used: NBS Oxalic Acid.

Constants used: C-14 half-life = 5568 years, reference age (present) = 1950 AD.