APPENDIX 3 of report on archaeological evaluation at Low Hauxley: radiocarbon dates

Summary of 14C dates

The calibrated dates are quoted at 2 standard deviations using data from Pearson and Stuiver (1986). Dates deriving from previous research are quoted uncalibrated, where no supporting data was given, or have been calibrated using CALIB version 2 and expressed as 2 σ.

A3.1 Radiocarbon determinations - Low Hauxley

Taken on human skeletal material from Cairn I (OxA-5553 and -5554) and Cairn 2 (OxA-5555 and -5556) recovered during the 1982-1988 investigations (submitted by Bonsall).

Data supplied by A Bayliss, AML

The calibrated date ranges for the samples have been calculated using the maximum intercept method of Stuiver and Reimer (1986), and are quoted in the form recommended by Mook (1986) with end points rounded outwards to 10 years.

Laboratory Number	Radiocarbon Age (BP)	Weighted Mean (BP)	Calibrated date range (1σ)	Calibrated date range (2σ)
OxA-5553	3615 ± 45	3621 ± 34	-2040 - 1940 cal BC	2140 – 1890 cal BC
OxA-5554	3630 ± 55			
OxA-5555	3410 ± 55	3420 ± 38	1870 – 1690 cal BC	1880 – 1640 cal BC
OxA-5556	3430 ± 55			

The probability distributions were calculated using OxCal (v2.15) (Bronk Ramsey 1994) and the usual probability method Stuiver and Reimer 1993). The results have been calibrated using data from Pearson and Stuiver (1986).

A3.2 Dates taken from previous bodies of work

A3.2.1 Frank (1982) and Innes and Frank (1988)

tree root embedded in the till - 3780 - 3536 cal BC (4890 ± 50 BP; SRR-1422) (calculated using CALIB v.2)

bottom of peat - 3633 - 3371 cal BC (4720 ± 40 BP; SRR-1421) (calculated using. CALIB v.2)

top 0.10m of peat 1062 - 862 cal BC (2810 ± 40 BP-, SRR- 1420) (calculated using CALIB v.2)

marine shells which occur as a lag deposit on the dune slack, *c*0.90m above the peat - cal AD 970-1170 (980 ± 50 BP; SRR- 1583) (calculated using CALIB v.2)

A.3.2.2 Tipping (pers comm)

A sequence of dates from samples taken from the peat, or fine detrital lacustrine mud, to the north of the ridge.

Dimensions given are measurements taken from the top of the peat (0cm is approximately 4m AOD)

0.60 - 0.58m - 3297 - 2611 cal BC (4280 ± 100 BP; HAR-8977) (calculated using CALIB v.2)

0.56 - 0.54m - 3640 - 3340 cal BC (4700 ± 70 BP; HAR-8976) (calculated using, CALIB v.2)

(date inversion with above)

0.50 - 0.48m - 1878 - 1510 cal BC (3360 ± 70 BP; HAR-8975) (calculated using CALIB v.2)

0.39 - 0.37m - 1735 - 1430 cal BC (3280 ± 60 BP; HAR-8974) (calculated using CALIB v.2)

0.02 - 0.00m - 753 - 250 cal BC (2330 ± 60 BP; HAR-8973) (calculated using CALIB v.2)

A3.2.3 Bonsall (1984)

C14 date on shells from the putative midden suggested a date of about 5000 bc (no other data available).

A3.3 Comparative table

Using cal BC dates, as expressed above.

	Low Hauxley evaluation/ AML (1995)	Frank (1982) Innes and Frank (1988)	Tipping (pers comm.)
Till		3780 – 3536 cal BC	
Base of peat		3633-3371 cal BC	3297 – 2611 cal BC 3640 – 3340 cal BC (date inversion)
Cairn 1	2140 – 1890 cal BC		
Cairn 2	1880 – 1640 cal BC		1878 – 1510 cal BC 1735 – 1430 cal BC
Top of peat Burial by sand		1062 – 862 cal BC	753 – 250 cal BC
Dune slack		Cal AD 970 – 1170	