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INSTITUTE OF GEOLOGICAL SCIENCES RADIOCARBON DATES IV

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This date list was compiled by the Institute of Geological Sciences (U.K.) incorporating data supplied under contract by E. Welin, Radioactive Dating Laboratory, Stockholm. Unless otherwise stated, age figures are in C^{14} years before A.D. 1950. The half-life of C^{14} is taken as 5568 years and the error, based on counting statistics of sample, background, and modern, is given as one standard deviation. Correction for C^{13}/C^{12} fractionation has not been made.

Great Harrowden series, Northamptonshire

Peat and organic soil from alluvium at Great Harrowden, Northamptonshire (52° 22′ N Lat, 0° 35′ W Long, Grid Ref. SP 875 695). Coll. 1970 and subm. by R. J. Chandler, Imperial College, London.

IGS-C14/69. (St 3685) **11,980 ± 145** **10,030 B.C.**

Alluvial sequence consisting of thin basal clayey gravel overlain by 1m bed gray organic silt with a peat layer, tufa, and calcareous sand. Sample from peat in upper part of organic silt bed some 2m below ground level.

IGS-C14/70. (St 3695) **9435 ± 610** **7485 B.C.**

Organic soil from top of organic silt bed, some 1.5m below ground level.

IGS-C14/71. (St 3694) Prah Sands, Cornwall **1805 ± 100** **A.D. 145**

Peat exposed on foreshore at mean high water mark (50° 06′ N Lat, 5° 23′ W Long, Grid Ref. SW 578 280). Coll. 1970 and subm. by R. T. Taylor, Inst. Geol. Sci. Peat from layer 0.20 to 0.30m thick overlain by blown sand and resting on 0.30 to 0.50m dark brown sandy loam with plant fragments and scattered, small, well-rounded, quartz and country rock pebbles. Loam rests on head (solifluxion deposits) of unknown thickness. Peat horizon appears to have formerly extended below O.D. but has been removed by marine erosion. *Comment* (R.T.T.): dates peat younger than submerged forest horizons of Cornwall and Devon coasts (Welin, Engstrand, and Waczy, 1972, p. 331). An older peat horizon described by Reid and Reid (1904) from beneath the head at this locality is no longer exposed.

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2345 ± 100

IGS-C14/72. (St 3692) Portmellon, Cornwall **395 B.C.**

Peat from depth 1.5m (0.3m below O.D.) in borehole (50° 16′ N Lat, 4° 47′ W Long, Grid Ref. SX 0160 4395). Coll. 1970 and subm. by E. C. Freshney, Inst. Geol. Sci. *Comment* (E.C.F.): peat forms part of infilling of one of drowned river mouths, common along S coasts of Devon and Cornwall. Probably related to other similar deposits around coast of SW England, e.g., Prah Sands in Cornwall.

Dunston Common series, Norfolk

Samples from borehole on Dunston Common near Norwich, Norfolk (52° 35′ N Lat, 1° 17′ E Long, Grid Ref. TG 2270 0267). Borehole proved 4.9m gravel deposited by R. Tas, overlying grayish-blue, lignitic, laminated clay, proved to depth 16.5m without reaching base. Coll. 1969 by A. R. Clayton and subm. by E. F. P. Nickless, Inst. Geol. Sci.

IGS-C14/73. (St. 3681) **>40,000**

Bulk sample of lignitic clay from 8.5m below terrace gravel.

IGS-C14/74. (St 3683) **>40,000**

Bulk sample of lignitic clay from 11.6m below terrace gravel.

General Comment (E.F.P.N.): glaciation that deposited Chalky Boulder Clay in Norwich area was assigned by West (1963) to Anglian, by Straw (1965) to Wolstonian, and by Woodland (1970) to Devensian. The R. Tas dissects Chalky Boulder Clay and glacial sand and gravel. Laminated deposits containing Hoxnian flora (L. Phillips and R. G. West, pers. commun.) underlie river gravel at 4 sites in Norwich area (Cox and Nickless, 1972) of which Dunston Common is one. Mapping and evidence from other boreholes indicate that interglacial deposits rest on Chalky Boulder Clay.

Spalding series

Peat and marine shells from Flandrian sequence of the Fens at Spalding, Lincolnshire. Samples were obtained from site-investigation boreholes drilled along line of proposed A16 Spalding By-pass. Coll. 1969 and subm. by A. Horton, Inst. Geol. Sci.

6240 ± 120

IGS-C14/75. (St 3684) **4290 B.C.**

Peat from depth 11.50 to 11.95m in Borehole A16-8 (52° 48′ N Lat, 0° 8′ W Long, Grid Ref. TF 2649 2324).

6220 ± 120

IGS-C14/76. (St 3682) **4270 B.C.**

Silty peat from depth 10.10m in Borehole A16-11 (52° 48′ N Lat, 0° 8′ W Long, Grid Ref. TF 2527 2675).

IGS-C14/77. (St 3659) **1915 ± 100 A.D. 35**

Valves of pelecypod (*Macoma balthica*) from sand at depth 6.0 to 6.4m in Borehole A16-14 (52° 52′ N Lat, 0° 9′ W Long, Grid Ref. TF 2478 3096).

IGS-C14/78. (St 3660 and 3664) **Outer 1615 ± 100 A.D. 335** **Inner 1555 ± 100 A.D. 395**

Valves of pelecypod (*Cerastoderma edule*) from sand at depth 6.0 to 6.4m in Borehole A16-14 (52° 52′ N Lat, 0° 9′ W Long, Grid Ref. TF 2478 3096).

West Bromwich series

Peat from deposit exposed in temporary excavation adjacent to M6 Motorway, N of Newton Lane, West Bromwich, Birmingham. Peat floors small tributary valley of R. Tame and rests upon glacial gravels (52° 32′ N Lat, 1° 58′ W Long, Grid Ref. SP 0213 9333). Coll. 1969 by A. Horton and P. J. Osborne, and subm. by A. Horton.

IGS-C14/79. (St 3686) **10,025 ± 100 8075 B.C.**

Peat, 0.41 to 0.51m above base of peat.

IGS-C14/80. (St 3698) **9640 ± 100 7690 B.C.**

Peat, 0.91m above base of peat.

IGS-C14/81. (St 3697) **9305 ± 110 7355 B.C.**

Peat, 0.97m above base of peat.

IGS-C14/82. (St 3693) **9540 ± 100 7590 B.C.**

Peat, 1.14m above base of peat.

IGS-C14/83. (St 3688) **9080 ± 455 7130 B.C.**

Peat, 1.22 to 1.32m above base of peat.

General Comment (A.H.): results confirm that deposit forms part of early Flandrian peat sequence representing a continuous period of peat accumulation. Previous results were obtained from base of peat and from 0.51 to 0.61m above base (Welin, Engstrand, and Vaczy, 1971, p. 28). There is no evidence that contamination or sampling error affected results for the 2 samples, IGS-C14/81 and /82.

Empingham series, Rutland

Samples from alluvial deposit of R. Gwash (52° 38′ N Lat, 0° 31′ W Long, Grid Ref. SK 9441 0790). Coll. 1971 by P. Horswill and subm. by R. J. Chandler, Imperial College, London.

1470 ± 100
IGS-C14/84. (St 3689) **A.D. 480**

Wood from depth 2.4m in alluvium.

2945 ± 240
IGS-C14/85. (St 3757) **995 B.C.**

Bone (*bos*) from depth 3.0m in alluvium.

3685 ± 100
IGS-C14/86. (St 3687) Telford, Shropshire **1735 B.C.**

Wood from pine tree lying horizontally in postglacial lacustrine clay, from sewer tunnel at Tweedale, Telford (52° 38′ N Lat, 2° 28′ W Long, Grid Ref. SJ 6985 0497), 5.2m below original ground level (*i.e.*, base of a colliery tip). Coll. 1970 and subm. by R. J. O. Hamblin, Inst. Geol. Sci. *Comment* (R.J.O.H.): lacustrine clay overlies undated, but probably late glacial gravel, and proves considerable development of postglacial deposits in Tweedale Valley.

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