

Helbinterpretation. A major theme of this conference was the astonishingly good preservation of organic materials from the past, for example of DNA in charred seeds or lipids in potsherd walls.

A point which was not raised is the risk that the current readiness to support the development of new techniques may divert funds from applying existing techniques to archaeological endeavours. To achieve the type of excellent synthesis presented by Prof. Berglund, dedicated and often tedious analysis of basic data is essential. One can also compare the paucity of large-scale seed and bone reports from British excavations to the excellent work coming from other European countries.

The contrast between the high quality of work going on in the laboratory and the usually casual nature of excavations is dismaying, and this seems to be a major weak point in overall strategies. It's also dismaying that techniques developed twenty or more years ago, such as flotation and radiocarbon dating, are still not fully exploited. This has little to do with money, but involves questions of organisation and communications that fell outside the scope of this highly stimulating conference.

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Short contributions

Percival and Helbæk's archive of plant remains

Fellow archaeobotanists may be interested to know of an archive of plant remains held in the herbarium at Reading University. Most of it originates from excavations of the 1920s and 1930s from sites all over the world, including many of the classic British sites published in Helbæk's *Early Crops in Southern England* (1953, Proceedings of the Prehistoric Society 18, 194-233) such as Meare, Fifield Bavant, Hembury, Itford Hill and Maiden Castle. The plant macrofossils were sent to Professor John Percival at Reading for identification, and amended identifications were added by Helbæk in November 1957. There is also a collection of Helbæk's own material which

comes mainly from Scandinavia and southern England.

The full list of the carbonised and desiccated plant remains held at Reading (copied from Percival's notebook) is given below. Visits to the herbarium to examine the material should be arranged through Dr Stephen Jury, Plant Science Laboratories, University of Reading, Whiteknights, Reading, RG6 2AS (telephone 0734 875123).

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Ancient Cereals

A list of desiccated and carbonised archaeological plant remains held at the Reading University herbarium, Plant Science Laboratories, Whiteknights, Reading, as recorded in Professor J. Percival's notebook. Amended identifications marked as * were added by H. Helbæk in November 1957. The 'P' numbers have been added more recently to assist in locating the material. [] notes are added by WJC.

EGYPT

- P18 Emmer 28/2900 Badarian, Mostagadda, M. Egypt. From Guy Brunton, 1928.
- P19 Barley 2800, ditto.
- P14 Emmer?? Predynastic Al Badari, M. Egypt. From Guy Brunton, 1924.
- P17 Emmer chaff & spikelets Predynastic Mostagadda, M. Egypt. From Guy Brunton, 1928.
- P16 Emmer chaff & spikelets No.1215 Badarian, Mostagadda, M. Egypt. From Guy Brunton, 1928.
- P15 Possibly emmer with dorsal hump and broad apex. Badarian, Mostagadda, M. Egypt. From Guy Brunton, 1927 (winter).
- P112 Wheat from Fayum in various gravels. From Miss Catn-Thompson 1925-6.
- P113 Wheat grains from K pits 33 & 44, Fayum. From Miss Catn-Thompson, 1926. See Times April 6 & August 11 1926.
- P115 Emmer & a little barley Fayum, pit K. 13. Miss Catn-Thompson, 1925-6.
- P117 Straw & barley grains chiefly pit 14, Fayum. Miss Catn-Thompson, 1925-6.
- P114 Barley grains from pits 33 & 44, Fayum. Miss Catn-Thompson, 1926. See Times April 6 & August 11, 1926.
- P111 Barley in various gravels, Fayum. Miss Catn-Thompson, 1925-6.

- P116 Barley with a little emmer Pit 34, Fayum. Miss Catn-Thompson, 1925-6.
 P118 Straw lining the storage pits, Fayum. Miss Catn-Thompson, 1926.
 P8 Emmer grains from underground gallery Magazine, N side of Step Pyramid, Sakkara. (Cairo Museum).
 P10 Emmer spikelets from store room of large tomb of the 3rd Dynasty, just inside enclosure wall of the Step Pyramid at Sakkara (also a little barley) [remains missing from box].
 P13 Neolithic wheat 2400-2000 BC. Oudoun on No. XVII, M. D. Puydt.
 P6 Emmer, *T. dicoccum* (thrashed) Middle Empire 1800-2000BC. From Aboukir, nr. Sakkara.
 P12 Emmer grains from Quinah in 1888. Probably 18th Dynasty.
 P9 Emmer taken from box in Egyptian tomb of XVIIIth Dynasty. Sir E. Wallis Budge (British Museum).
 P11 Emmer spikelets with grain from the tomb of Tutankhamun. Howard Carter sent to Kew for identification & sent to me by Dr Boodle (Jodrell Lab, Kew) [box missing].

INDIA

- P45 I Wheat (*T. sphaerococcum*?) From Mohenjo-Dara, India. L area. 1923-7.
 P46 II Wheat ditto, SD area. 1927-8.
 P47 III Barley (*Hordeum vulgare*) H.R. 1616.
 *Six-row hulled barley, probably *H. tetrastichum*. H.H.

TURKEY

- P70, P71, P72
 Barley grains from Mersin in Cilicia, Turkey. March 1947. From Prof V. G. Childe. 'In Neolithic layers well into the 4th millenium, probably earlier than the Mesopotamium Tell Half Stage', all *H. distichum var. nudum*.

MESOPOTAMIA

- P21 Wheat grains? a form of emmer found in a vase in an old Sumerian house 'Jemdet Nasar', Mesopotamia. 17m NE of Kish. 3500BC. Prof. S. Langdon.
 * *T. dicoccum* H.H.
 P22 Emmer grain from grain room T.T.5 Tal Arpachiyah, nr. Nineveh, Iraq. M. E. L. Mallowen, 1933. (British Museum excavation).
 * *T. dicoccum*, one grain *T. monococcum* L = 5.49, B = 2.38, T = 2.56mm. Some 15 grains of hulled barley transferred to P23. H.H.
 P23 Barley from grain room T.T.5 Tal Arpachiyah nr. Nineveh. M. E. L. Mallowen, 1933.
 P20 Barley chiefly from T.T. well at Tal Arpachiyah

nr. Nineveh. M. E. L. Mallowen, 1933.
 * A dozen unspecified hulled barley grains, one *T. dicoccum*, one *T. ___* (?) badly puffed. H.H.

N. SYRIA

- P89 Barley, 2-rowed No.1 7. Site H.H. c.1500BC. B.M. excavations, 1939, T. Brak, N. Syria. M. E. L. Mallowen.
 P86 Barley No. 18. Mefesh. An ancient prehistoric site in the Balitsh Valley, Central Syria. Found in a burnt house settlement. Date before 3500BC. B.M. excavation, 1939. M. E. L. Mallowen.

[All of the following] British Museum excavations at T. Brak, N. Syria by M. E. L. Mallowen, all 1939 except no. 14 [P85]

- P81 No. 1 Barley J.N.P. 2400BC??
 P77 2 Barley, ditto.
 * 1 seed *Prosopis Stephaniana*, hulled barley, a few *T. dicoccum*. H.H.
 P73 3 Barley & a few wheat (*T. dicoccum*) grains J.N.P. 2400BC??
 * 2-row hulled barley, 6 grains of *T. dicoccum*. H.H.
 P80 4 Barley & a few wheat grains J.N.P. 2400BC??
 P76 5, ditto, 2500BC accurately dated by a Sargonid Tablet.
 * 1 frag. grain of *Avena* sp., 7 grains *Aegilops* sp. var., a dozen hulled barley, a dozen *T. dicoccum*. H.H.
 P74 6 Barley & a few wheat grains Naram Sin's Palace, Room 13, Subjected to fire action, 2400BC.
 * 2/3 hulled barley, 1/3 *T. dicoccum*, (2 grains *T. compactum*?), 1 seed *Lathyrus sativus* H.H.
 P79 7 Barley & 5 or 6 wheat grains Court 2. J.N.P. 2400BC.
 * Hulled barley, *T. dicoccum*, 1 seed *Lens esculenta*. H.H.
 P78 9 Barley Naram Sin's Palace, Room 10.
 P75 10 Barley Grain from shaft no. 2. J.N.P. In the filling. Date probably but not certainly 3000-2000BC.
 P75 [duplicate] *Hordeum vulgare* 3000-3200BC. Barley from excavations in Syria. B. M. Mallory 1936.
 P83 11 Barley & 5 wheat grains J.N.P. No. 11 above shaft no. 1, c.3000BC. Scorched by fire.
 P82 12 Barley & 3 or 4 wheat grains F.S. A.2(?) c.2400BC.
 P84 13 Barley No. 13 F.S. Level A.2.
 P85 14 Barley '1937 dig' CRH. Probably 2400-2900BC.
 P88 15 Barley & a few wheat grains Site E.R. c.2400BC (some emmer).
 P87 16 Barley scorched by fire. H.H. Mix c.1350-1500BC.

PALESTINE

- P24 Wheat grains Gezer granary c.1000BC. From Prof. Macalister, Dublin 1920.
* *T. compactum*, one grain *T. dicocum*. H.H.
- P110 Barley & wheat Jericho excavations. Late Bronze Age c.1450BC?

SWITZERLAND

- P35 Wheat from Robenhausen. From Dr Heer (Kew).
- P37 Wheat, ditto.
- P38 Wheat Swiss Lake Dwelling.
- P39 *T. vulgare antiquorum* Robenhausen.
- P36 Wheat Robenhausen Lake Dwelling.

BRITISH ISLES

DEVON

- P34 Wheat Neolithic from Hembury Fort. Pit 15 CXI 1932. Miss Liddell.
- P33 Wheat Neolithic. Hembury. CXE Pit Q, 1932. From Miss Liddell.
- P32 Wheat Neolithic. Hembury, 1932. Cutting XE, Pit 16. Miss Liddell.

SOMERSET

- P43 Barley Meare Lake Village. From Taunton Museum. St John Grey.
- P95 Wheat I, ditto.
- P96 Wheat II, ditto
- P44 *Avena brevis* Meare Lake Village. 'some *Bromus secalinus* caryopses'
* *Bromus secalinus* or *mollis*, 2 *T. dicocum*, no *Avena*! H.H.
- P40 *V. faba celtica* Meare Lake Village.
- P41 Barley & beans Worlebury Hill, Weston-super-Mare. Iron Age, La Tène II & III. 'Evidently carbonised by fire action'.
- P42 Wheat Little Solisbury, Bath.

DORSET

- P67, P68, Barley grains from Winklebury, associated with P107 British Pottery from bottom of pit 3. From General Pitt-Rivers.
- P106 Wheat grains (chaff) with small celtic bean (*V. faba*) from Marnhull. Iron Age with Black Belgian ware. From M. C. E. Bean. March 2, 1937.
- P98 Wheat & barley Romano-British village, Woodcote, Dorset. Pit 4. Gen. Pitt-Rivers.
- P104 Wheat I, 2-grained spikelets. Iwerne. General Pitt-Rivers.
- P105 Wheat II Evidently subjected to fire. Iwerne.

General Pitt-Rivers.

- P99, 100 Wheat Corfe Mullen, from Miss L. Blamey, November 27 1928. Wheat A from 2-grained spikelets.
- P102 Wheat Maiden Castle, pit 83 (84). MSL. From Dr Wheeler, November 1936.
- P101 Wheat Maiden Castle, pit 75 p11, MSL. From Dr Wheeler, 1936.
- P103 Wheat & 7 grains of barley Iron Age. Maiden Castle. Pit 30, grain sample 2. Dr Wheeler.
- P69 Bread Maiden Castle. From Dr Wheeler, 1934.

OXFORDSHIRE

- P66 Wheat from Charlbury, D.S.E. Quadrant 4, 1.3.39. Iron Age A site. The grains are similar to those from pit 75, Maiden Castle, sent by Dr Wheeler but have been carbonised by fire action. Sent by Miss Margaret Whitley, May 8 1940.

GLOUCESTERSHIRE

- P3 Wheat (*T. vulgare*) Iron Age camp, Bredon Hill, Gloucester. E.60, Floor III, Post Hole 1.Q.1937. In association with infant burial in the post hole. Miss Thelma C. Hencken.

BEDFORDSHIRE

- P4 Barley (2-rowed), 1 wheat grain & *Bromus secalinus* caryopses Tottenhoe Castle, Bedford. Curator Luton Museum.
- P2 Wheat Early Iron Age. 5th-2nd century BC. Tottenhoe Castle, Bedford. C. F. Hawkes. January 25 1937.
- ?P2 *T. vulgare* Early Iron Age wheat from Tottenhoe, 500-200BC, C. F. Hawkes, January 1937.

NORTHAMPTONSHIRE

- P1 Wheat Danes Camp, Hunsbury. Pre-Roman 'late celtic' c.50BC-50AD. T. G. George (from Kew to me). The grains have been subjected to fire action.

LANCASHIRE

- P25 Barley Ribchester.

KENT

- P27 Wheat from a pit at Little Chart, Kent. Roman tile above the pit so Roman or earlier. 24.6.1934. Mr Cole, Maidstone Museum.
- P30 Wheat Richborough Castrum 1887. From Maidstone Museum.

- BERKSHIRE
- P26 Wheat (*T. vulgare*) from small vessel in gravel pit at Theale, nr. Reading. c.1896. Reading Museum. Late Bronze Age or Early Iron Age.
- BUCKINGHAMSHIRE
- P97 Wheat Romano-British, AD50–350. Hambledon Valley, Bucks. *Archaeologia* 1921.
- MIDDLESEX
- P29 Barley from foundation of a Roman building, Threadneedle Street, London 1841.
- ?P29 *Hordeum vulgare* Charred barley from Roman pavement under French Protestant Church, Threadneedle Street.
- P28 Wheat St Dione's Back church (London). 16 foot below Lime Street under site of S aisle of the ancient church (now gone).
- YORKSHIRE
- P31 Wheat Roman excavation at Malton, Yorks. T. Sheppard.
- GLAMORGAN
- P108 Wheat & *Bromus secalinus* Middle Bronze Age barrow (c.1400BC) from Bridgend. August 1937. Sir Cyril Fox.
- JERSEY
- P109 Small celtic bean, barley & 1 or 2 wheat grains from Le Pinacle, Jersey. Chalcolithic or very late Neolithic period. Prof. J. Burdo.
- IRELAND
- P5 Wheat Bronze Age cairn, Baltinglass, County Wicklow. 1935. Dr O'Connor, Nat. Hist. Museum Dublin.
- HERTFORDSHIRE
- P65 Wheat from burnt debris on floor of cellar. Park Street Roman villa, nr. St Albans. October 1943–March 1944, c.367AD.
- SCOTLAND
- P62 Barley from Cublin Sands, Morayshire. Dr Callender, Edinburgh Museum.
- P58 Wheat & barley, ditto.
- P59 ditto (barley ?naked)
* Emmer, *T. dicoccum*, naked barley, hulled barley. H.H.
- P63 Oats Maudslie Law, Lanark. FR 218, Edinburgh Museum.
- P60 Wheat Nr. Roman wall at Castlecary. From John Mirk, Renfrew (Paisley Museum).
- P64 Chiefly barley & wheat Forts on Laws Hills, Monifieth, Angus. GN.48, Edinburgh Museum.
- P61 Wheat & barley from Roman Fort at Lyne. Edinburgh Museum.
- P57 Barley Forts on Laws Hills, Monifieth, Angus. GN 49, Edinburgh Museum.
- P56 Barley chiefly Roman Fort, Birrens, Dumfries. Edinburgh Museum.
- P55 Barley & wheat Roman Fort nr. Falkirk. F.R. 217. Edinburgh Museum.
- P54 Wheat & barley From Roman Station [?] nr. Forth, Clyde Canal. F.R. 215, Edinburgh Museum.
- P53 Roman wheat F.R. 216 Edinburgh Museum.
- P52 Barley & wheat Roman Fort at Castlecary. FZ 132, Edinburgh Museum.
- P48 Barley, ditto, FZ 1331, Dr Callender.
- P51 Barley & wheat, ditto, FZ B4, Edinburgh Museum.
- P50 Wheat & barley, ditto, FZ 135.
- P49 Wheat & barley, ditto, FZ 136.
- P92 One wheat grain from the broch of Burrian, North Ronaldshay, Shetland. GB 317, Edinburgh Museum.
- P91 Barley from the broch of Burrian, North Ronaldshay, Shetland. GB 318, Edinburgh Museum.
- P94 Wheat, chess or *Bromus secalinus*. Rye-like brome grass, common cereal crop weed. From Nybster Broch, Caithness. GA 686, Edinburgh Museum.
- P93 Barley From the Broch of Lingrow, Scapa, Orkney. GE 28, Edinburgh Museum.
- P90 Barley From the Road Broch, Keins, Caithness. Edinburgh Museum.
- [Also present—H numbers, presumably Helbæk's collection]
- H1 Saggarah, Egypt: Steppyr pyramid. Ichetti tomb, 6th Dynasty. Excavated J. P. Laver, 1950. *H. tetrastichum*, *Lolium temulentum* (one grain). 1958, not published, c.2350BC.
- ?H1 *Hordeum tetrastichum* from tomb of Queen Icheti, Egypt c.2350BC.
- H3 Nimrud, Iraq, exc. M. E. L. Mallowan. 1953, date 7th C BC, Assyrian. *Lens esculenta*, 1958, not published.
- H4 As above, *Panicum mileaceum* 1958 not published.
- H5 Nimrud, Iraq, exc. M. E. L. Mallowan 1955, date: Hellenistic. *Hordeum distich. nutans* (with v. stray *H. tetrast.* grains in between) 1958 not published.
- H6 Lachish, Palestine exc. Olga Tuffnell, 1932–38,

- date 900–600BC. *Olea europaea* publ: Helbæk 1958 p. 309. O. Tuffnell 1958. Lachish IV. London.
- H7 Lobsiegersee, Swit. Exc. H. G. Bandi, by assist., date E. Cortailot, Neol. *Pisum arvense* s.l. 1958 not publ.
- H8? Vallhagar Gotland Sweden, exc. M. Steenberger 1947–48, date C4th AD, Spikelet forks *T. spelta* & *dicoccum*, publ. Helbæk 1955 'The Botany of the V IA Fi. in Vallhagar, Stockholm'.
- H9 Melsted Bornholm Denmark, exc. C. J. Becker 1951. Mesolithic (Boreal) *Corylus avellana* pub. C. J. Becker 1951. Maglemosekultur paa Bornholm Aarbøger, Copenhagen.
- H10 Dalshøj Bornholm Denmark, exc. Ole Klindt-Jensen 1950, date C1st AD, *Hordeum tetrastichum*, mainly *T. dicoccum*, *Avena fatua*. Pub. Helbæk 1957, 'Bornholm Plant Economy' etc.
- H11 Sandegaard, Bornholm, Denmk. Exc. C. J. Becker 1950. 2nd mill.BC (EBA), *Pyrus malus* Helbæk 1952 *Acta Arch.* Copenhagen, p. 107ff 'Preserved Apples and Panicum'.
- H12 [As above] *Pyrus malus*.
- H13 Solbjerg. Mors Denmk., exc. G. Hatt 1928, date C3rd–1st BC, EIA. *Hordeum tetrastichum* naked & hulled, pub. (wrong ident.) K. Jessen 1929 in G. Hatt 1929 Aarbøger Copenhagen (Solbjerg & Fredsø).
- H14 Østbirk, Jutland, Denmk., exc. accidentally 1952, date 1000–500BC LBA. Mixed *Triticum* (*monococcum*, *dicoccum*, *spelta*, *compact.*) Pub. Helbæk 1952, *Acta Arch.* 98.
- H15 Birkennes, Jutland Denmk., exc. Th. Tomsen 1919–11. 1000–500BC LBA. Mixed *Triticum* (*dicoccum*, *mono.*, *spelta*, *comp.*), pub. Helbæk *Acta Arch.* 98.
- H16 Birkenaes, Jutland Denmk., exc. Th. Tomsen 1910–11, 1000–500BC LBA. *Hordeum tetrastichum* hulled & naked, not published.
- H17 Østerbølle Jutland Denmk., exc. Gudmund Hatt 1937, C1st AD. *Camelina sativa* etc (*Linum*) pub. Helbæk 1938 *Aarb. f. Nord. Oldkyndighed*, Copenhagen.
- H18 [as above] *Linum usitatissimum*.
- H19 Itford Hill, Sussex, exc. Holleyman & Burstow 1949, 1000–750BC. *Hordeum tet. H. hex.* Pub. Helbæk 1952 & 1957 'Early Crops..' *PPS*
- H20 Verulamium, St Albans, England. Exc. Mortimer Wheeler & M. Alwyn Cotton 1949. Roman. Mix of *Secale cereale*, *T. spelta* & *T. compact.*, pub. Helbæk 1952 *PPS*. 1953 Report on Cereals in Cotton & Wheeler, 'Verulamium' 1949. *St Albans Archit. & Arch. Soc. Trans.*
- H21 Meare, Somerset. Exc.: ask Reading Museum! ELA. *Vicia faba* var. *minor*. Percival 1934. 'Wheat in Great Britain'. Helbæk 1953 'Early Crops..'
- H22 Oxbøl Jutland Denmk. Exc. G. Hatt 1937, C6th AD. Hulled *Hordeum tetrastichum*. Site & grain publ. Hatt & Helbæk, *Acta Arch.* 1959 Copenhagen.
- H23 Fjand Jutland. Village C1st AD, exc. G. Hatt 1938–40. Hulled *Hordeum tetrastichum*, grain not published. 1958. Site: G. Hatt, Nørre Fjand *Arkaeol. Kunst. Skr. Dan. Vid. Selsk.* 2 no.2 (1957).
- H24 [as above] *Avena sativa*.
- H25 [as above] *Chenopodium album*.
- H26 Fifield Bavant, Wiltshire. *Hordeum tetrastichum* hulled grain published, Helbæk 1952 *PPS* 18.
- H33 Helbæk, mostly spelt, M.C. P12 21–23 II. [Maiden Castle]
- H39 Maiden Castle. Pit 21–23, *Hordeum tet.* hulled, publ. Helbæk 1952 p. 17.
- H51 Maiden Castle, pit 21–23, *Triticum dicoccum* & *spelta*, *Inst. Arch. Lond. Publ.* Helbæk 2.9.36. Clay earth.
- H57 [as above] Mixed, over marsh.
- H58 Helb. *Triticum dicoccum* & *spelta* Malton.
- H63 Helb. *Triticum dicoccum?* & *spelta* L. Solisbury.
- H68 *T. dicoccum* Castle Cary.
- H70 *H. tetrast.* hulled, Castle Cary.
- H86 *H. cf. tetrast.* Birrlius.
- [Miscellaneous boxes lacking numbers or other information]
- P7 Emmer spikelets 1937.
- Ancient Egyptian bread from Thebes, Renoniz [?] Museum.
 - Robinhausen bread.
 - Neolithic grain Pit. Hembury, 1932.
 - Barley & wheat, Cublin Sands.
 - Charred wheat & beans, Marnhull, Dorset.
 - *T. vulgare*, Primitive bread wheat, Marnhull, Dorset, 1st C AD.
 - Florets from round barrow above Ditchling village (Sussex) not far from Ditchling Beacon Ex. 1963. Gordon Hillman.
 - Wild pea, 1962, *Pisum elatius*, Küçük Köy (Turkey).
 - Dorset, Maiden Castle Pit 21–23, *T. dicoccum* & *T. spelta*. *Inst. Arch. Lond. Publ.* H. Helbæk 2.9.1937.
 - *V. faba*, Meare Lake Village, Glastonbury. George Gray, January 1927.
 - *Atriplex patula* (?*A. hastata*) Iron Age site at Beckford, Worcs. Janet Roberts.
 - Oats *Avena brevis* or *A. strigosa*. Among wheat from Corfe Mullen, Dorset.
 - *Bromus secalinus* in wheat from Little Solisbury, Bath.
 - ditto, Broch, Caithness, 39.
 - ditto, Tottenhoe Castle, 22.
 - Darnel, *Lolium temulentum*—impurity in emmer sample from store room of tomb of 3rd Dynasty, Nr. Step Pyramid, Sakkara.
 - *Vicia faba* var. *minor* Carb. beans Meare L.V. Pit 319—grain from ashy deposit in E side of pit. From batch

sent to B.M.(N.H.) Bot. Dept. for ID by Bulleid G.C.H.
- Pot with included grain, ELA, Øster Leu, Jutland, Dk. G.
Hatt 1936.

[un-numbered tubes]

Old Kilpatrick
Glenluce
Forth & Clyde
Fifield Bavant
Castle Cary
Salisbury
Birrlus—*Cenococcum gramiforme*
Barhapple Rock etc.

[un-numbered petri-dish displays]

Falmer, Sussex
Fifield Bavant
Great Weldon, Northants
Itford Hill, Sussex
Lamb Lea, East Dean, Sussex
Wickbourne, Sussex
Lullingstone, Kent
Woodcuts, Dorset
Verulamium, Herts
Great Casterton, Rutland
Rotherly, Wilts
Glastonbury Lake Village, Somerset
Meare Lake Village

What shall we call these organic pit fills?

(A stercoraceous miscellany)

I have been engaged in a gentle match of wits with one of the editors of *Circaea* during the last few years over a subject dear to the hearts of many of us who work on urban archaeological sites—namely what (in a respectable scientific journal) to call pit fills which, on the basis of their suite of food remains and intestinal parasite eggs, clearly contain human faeces. It is a subject clothed very modestly in swathes of euphemism and I hope that unravelling some of them here will not offend the reader.

The way in which I shall tackle the problem is to go back through the shifting sands of linguistic evolution and look at the history of some of the words which were or are used in this context, and to consider some others which *might* be. Words to be used in a scientific context such as environmental archaeology should be precise, clear and easily understood (or easily looked up in a

dictionary) by non-native speakers of English. I hope I can provide some suitable terms. Etymology is a tricky area for a botanist to tread, and I have been glad of the help of Dr C. C. Dyer of Birmingham University, as well as that of the Editors of *Circaea* and an anonymous referee. I cheerfully admit that any gross blunders will probably be mine.

I have used two main sources of information: *The Oxford English Dictionary* (1978 edition) and *The Middle English Dictionary* (Kurath and Kuhn 1954–), hereafter abbreviated to *OED* and *MED*. The written record prior to the fourteenth century is sparse and most of this medieval documentary evidence is about financial transactions or litigation, so that references to such a personal subject as defecation are naturally somewhat rare, and citations in the *MED* are therefore especially useful.

The story starts with *privy*, which is one of the terms still understood today in its original medieval sense as a private (place) and, by extension, as a place where various bodily functions could be carried out in private. Most of the other words for this are as indirect as modern ones: one such is *easement*, used by Chaucer in *The Reeve's Tale*, among others. An example of its use dated 1513 instructs: '... and se the house of *hesement* be swete and clene' (*OED*). The word was still used in its more general sense (the process of giving relief), too.

Latrine (and the more modern *lavatory*) derives from Latin *lavatrina*, itself from *lavare*, to wash. In its Latin form it was very commonly used in the fourteenth and fifteenth centuries in official documents, and this probably led to its adoption by the English language. The English word *latrine* is recorded only from 1642 (*OED*). With such a pedigree, it seems a not entirely unsuitable word to use in the context with which we are dealing; it is one of many examples of euphemism in which words meaning 'a washing place' are used to describe a place of defecation and/or urination.

Another old word in regular use was *garderobe*. Its use, to signify a privy within a house, is almost exclusively a sense adopted by historians, for example Ernest Sabine (1934), who used the term extensively, but always italicised. *Garderobe* really means a place for storing clothes (from French *garder*