

- Healey, E., and Robertson-Mackay, R., 1983, 'The lithic industries from Staines causewayed enclosure and their relationship to other Earlier Neolithic industries in southern Britain', *Lithics* 4, 1-27.
- Healy, F., 1983, 'Neolithic and later material from a shaft at Brampton', *Norfolk Archaeol.* XXXVIII (iii), 363-374.
- Healy, F., forthcoming, 'Farming and field monuments: the Neolithic in Norfolk', in Barringer, J. C. (ed.), *Aspects of East Anglian Prehistory 20 years after Rainbird Clarke* (Norwich).
- Lawson, A. J., 1983, *The Archaeology of Witton, near North Walsham*, E. Anglian Archaeol. 18.
- Lawson, A. J., forthcoming, 'The excavation of a round barrow site at Little Cressingham 1977', *East Anglian Archaeol.*
- Longworth, I. H., 1960, 'Pottery' in Clark, J. G. D. et al.; Excavations at the Neolithic site at Hurst Fen, Mildenhall, Suffolk (1954, 1957 and 1958), *Proc. Prehist. Soc.* XXVI, 228-240.
- Longworth, I. H., 1981, 'Neolithic and Bronze Age pottery', in Mercer, R. J., *Grimes Graves, Norfolk Excavations 1971-72: volume I*, 39-59.
- Manby, T. G., 1970, 'Long barrows of northern England; structural and dating evidence', *Scot. Archaeol. Forum* 17, 1-224.
- Petersen, F. F., and Healy, F., forthcoming. 'The excavation of two round barrows and a ditched enclosure on Weasenham Lyngs, 1972', *East Anglian Archaeol.*
- Piggott, S., 1954, *The Neolithic cultures of the British Isles* (Cambridge).
- Pryor, F., 1982, 'Problems of survival: later prehistoric settlement in the southern East Anglian Fenlands' *Analecta Praehistorica Leidensia* XV, 125-143.
- Sims, R. E., 1973, 'The anthropogenic factor in East Anglian vegetational history: an approach using A.P.F. techniques' in Birks, H. G. E. and West, R. G. (eds.) *Quaternary Plant Ecology* (London), 223-237.
- Sims, R. E., 1978, 'Man and vegetation in Norfolk', in Limbrey, S., and Evans, J. G., (eds), *The effect of man on the landscape: the Lowland Zone*, Council Brit. Archaeol. Res. Rep. 21 (London), 57-62.
- Smith, I., 1954, 'The Pottery', in Childe, V. G., and Smith I. F., 'Excavation of a Neolithic barrow on Whiteleaf Hill, Bucks.', *Proc. Prehist. Soc.* XX, 221-228.
- Smith, I. F., 1956, 'The Decorative Art of Neolithic Ceramics in South-East England and its Relations', unpubl. Ph.D. thesis, Univ. of London.
- Smith, I. F., 1965, *Windmill Hill and Avebury* (Oxford).
- Smith, I. F., 1974a, 'The neolithic', in Renfrew, C., (ed.), *British prehistory a new outline*, 100-127.
- Smith, I. F., 1974b, 'The Neolithic Pottery from Fengate, 1972' in Pryor, F., 1974, *Excavation at Fengate, Peterborough, England: the First Report.*, Royal Ontario Museum Archaeology Monograph 3, 31-33.
- Wainwright, G. J., 1972, 'The excavation of a Neolithic settlement on Broome Heath, Ditchingham, Norfolk, England', *Proc. Prehist. Soc.* 38, 1-97.
- Wainwright, G. J., 1973, 'Prehistoric and Romano-British Settlements at Eaton Heath, Norwich', *Archaeol. J.* 130, 1-43.
- Whittle, A. W. R., 1977, *The Earlier Neolithic of Southern England and its Continental Background*, Brit. Archaeol. Rep. S35 (Oxford).

**THE MILE CROSS HOARD:
TWO EARLY BRONZE AGE AXES FROM NORWICH**
by Andrew J. Lawson

A small hoard comprising two bronze flat axes was discovered in 1977 by Mr. Albert Burman whilst erecting a fence in the rear garden of his former home at 6 Rye Close, Mile Cross, Norwich. The exact find spot (County Site 685N; NGR TG 2182 1092) lies between the house and a gate from the garden to a path which flanks the west side of the property, six feet from the gate and at c. 80 ft. (24.4m) O.D. (Fig. 1). At the time of discovery Mr. Burman did not realise the

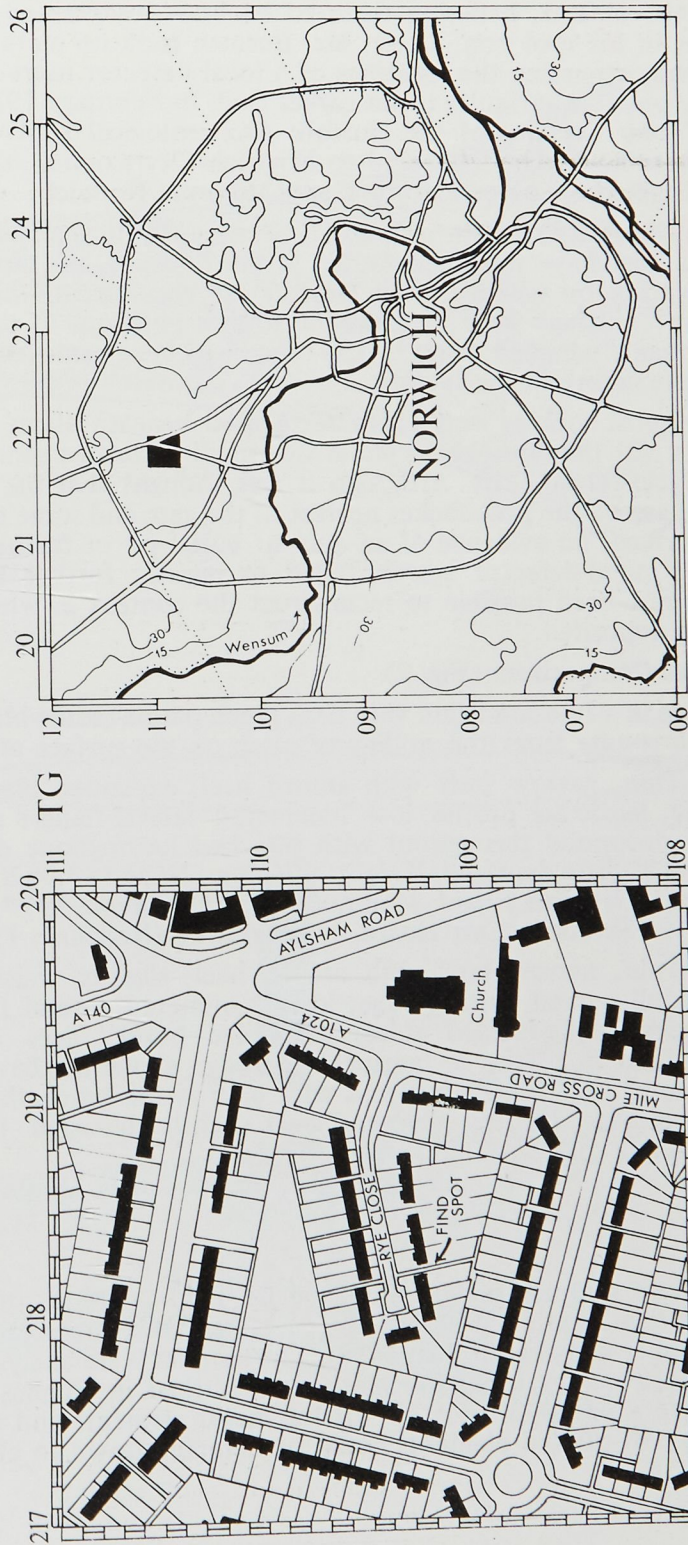


Fig. 1
Mile Cross Hoard, Norwich. Location of find spot. Crown Copyright reserved

antiquity of the objects, believing them to be brass wedges and, consequently, he kept them in his tool box. Later, Mr. Burman took up metal-detecting as a hobby, regularly attending the meetings of a local detector users' club where he learned of the possible antiquity of his earlier find. In February 1982, he reported the find to Tony Gregory of the Norfolk Archaeological Unit. Following Mr. Gregory's advice he declared the find to Norwich City Council, the landowners, who in turn donated the objects to the Castle Museum, Norwich.

Because of the rarity of such a find and because Mr. Burman had thought that other bronzes may have remained buried at the findspot, the author undertook a small excavation on behalf of the Norfolk Archaeological Unit. On 25 May 1982, two 1m² cuttings were made at the former positions of posts which had held Mr. Burman's panelled fence.¹ The fence had been removed and the posts lifted some time before the evaluation.

The refilled post sockets were easily recognised beneath 40cm of dark brown topsoil as they cut the homogeneous stone free medium brown sandy loam of the Pleistocene glacio-fluvial drift. Although it was thought that the axes had been found at the base of the post socket nearest to the gate and some 60-70cm below the ground surface, no evidence of an ancient burial pit or further objects were discovered. A metal-detector search failed to register further buried objects. Hence, it has not been possible to reconstruct the context in which the objects were originally deposited.

Description and Comparisons (Fig. 2)

Both axes are in a fine condition with dark green patina (some black discolouration on No. 1 results from the spilling of pitch on the surface after discovery).

1. **Flat Axe:** Thin, narrow butt with arched heel; expanded blade and curved cutting edge; lenticular profile; low 'hammered' lateral flanges above rounded sides; faces decorated throughout with punched herringbone design. Cutting edge dull and slightly damaged. Weight: 406.0gm. NCM 147.982(1).

Comparisons: Newport Hoard, Monmouthshire (Needham 1979, fig. 12.1)
Sherburn Carr Hoard, N. Yorkshire (Needham 1979, fig. 12.2)

2. **Flat Axe:** Thin, narrow butt with arched heel; slightly waisted; expanded blade with dull curved cutting edge; low, 'hammered' lateral flanges, poorly defined above triple-faceted sides; transverse bevel; faces with punched decoration, faint in places, in herringbone design above the bevel and infilled triangles below, one triangle inverted with base at the bevel, three with bases at the cutting edge. Cutting edge and butt slightly damaged, the latter after discovery. Weight: 509.5gm. NCM 147.982(2).

Comparisons: As No. 1, and Boulogne, Pas-de-Calais (Megaw and Hardy 1938, no. 249, fig.15b).

Analysis

Both axes were sampled and analysed by Dr. Paul Craddock of the Research Laboratory, British Museum (File No. 4915) as part of a larger project on Early Bronze Age copper alloys (File No. 4488). The samples were analysed by Atomic Absorption Spectrometry using the methods described in Hughes *et al* (1976). The results have a precision of $\pm 1\%$ for the major elements and $\pm 20\%$ for the trace elements. All quoted elements could be detected down to at least 0.005% in the metal.

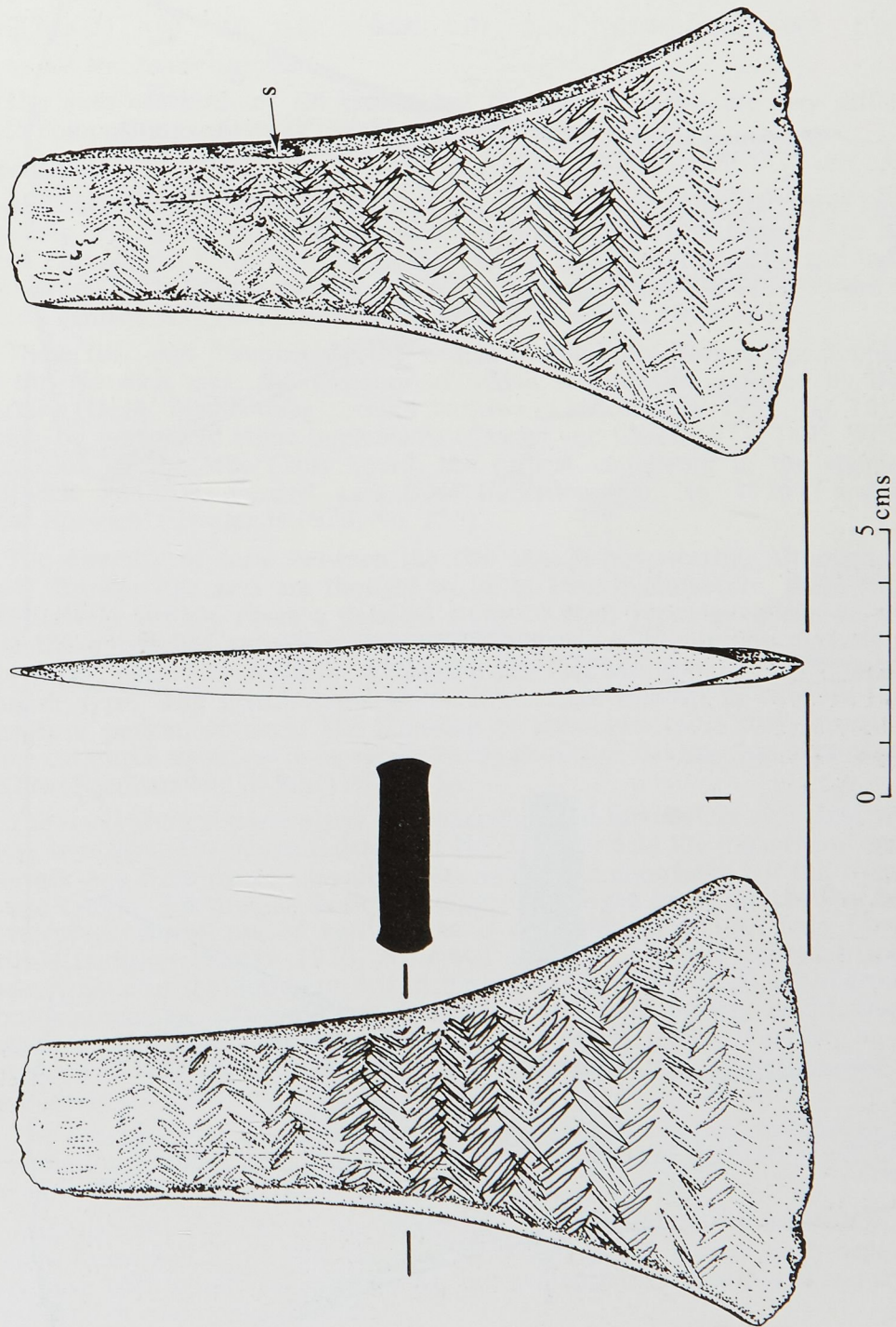


Fig. 2 (1)

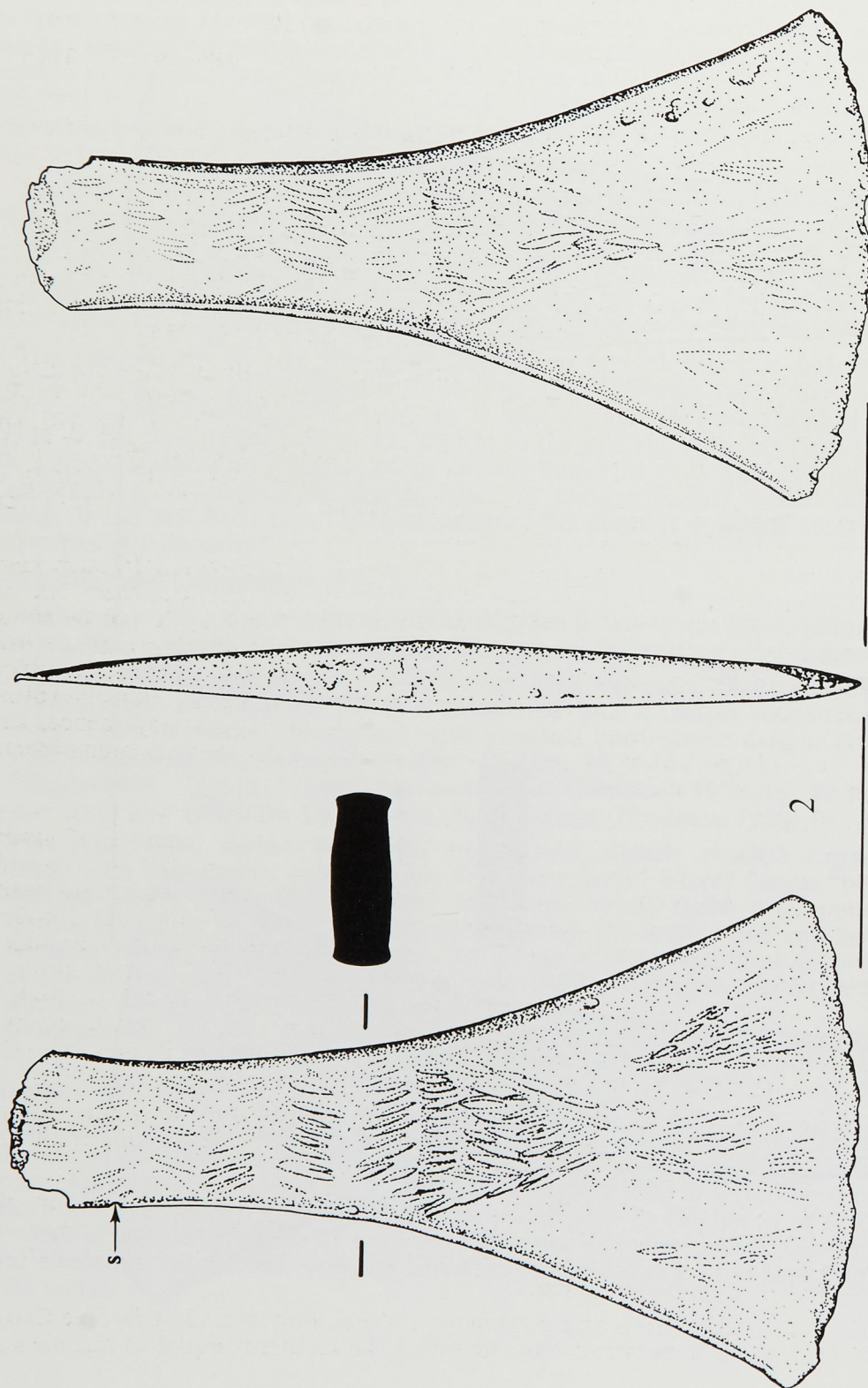


Fig. 2 (2)
Mile Cross Hoard, Norwich. Decorated bronze flat axes

	Cu	Sn	Pb	As	Sb	Bi	Ag	Ni	Co	Fe
Large Axe (2)	92	7.0	0.085	0.3	0.4	0.002	0.17	0.34	0.007	0.015
Small Axe (1)	90	9.0	0.02	0.63	0.07	0.01	0.04	0.06	0.003	0.005

Au, Cd, Mn, Zn not detected

The axes are both of tin bronze but the trace elements are very different. Both compositions are quite usual for the Early Bronze Age.

Discussion

Although thirty seven flat axes have been discovered in Norfolk, these two are arguably the finest yet recorded and comprise the earliest Bronze Age hoard from East Anglia.² On technological grounds, continental analogy and indirect association with Beaker pottery the Mile Cross axes may be dated to the nineteenth century B.C. (Early Bronze Tradition 2; Needham 1979, 285).

These fine axes demonstrate the wealth of the Early Bronze Age population of the Norwich area, the presence of which is otherwise attested by Beaker pottery (Healy forthcoming), round barrows (Lawson *et al* 1981, fig. 18), and rarely by perforated stone implements (Clough and Green 1972, 149). With the exception of the Mile Cross hoard, the earliest metalwork in the vicinity of Norwich comprises flanged axes from Hellesdon (Co. No. 17167) and from 'near Norwich' (Rowlands 1976, No. 255).

The diversity of form between the two axes is noteworthy. Although many Early Bronze Age axes are thought to be of Irish manufacture, these two are distinctively British. From a detailed study of their typology it can be shown that the unbevelled axe (No. 1) is of a form whose distribution extends from Northern England to Norfolk, whilst the bevelled axe (No. 2) is of a Southern English type. The distributions of the two types overlap in Norfolk (Stuart Needham person. comm.). The hoarding of these two types may, hence, have some curatorial significance especially as the pairing of flat axes has been observed before (Needham and Saville 1982, 17).

The decoration is particularly well executed and fortunately well preserved on these two axes. The chevron design of No. 1 is found on the fragment of another Norfolk axe from Barton Bendish (Site 4493) and elsewhere, but the triangular design on No. 2 is unique. Both decorative designs are easily matched on Beaker pottery; expansive use of herringbone is characteristic of the Late Northern British tradition (Clarke 1970, 20; motif group 3), and the infilled triangle is characteristic of the Southern British tradition (Clarke 1970, 20; motif group 4). Contemporaneity between these flat axes and Beaker pottery might, thus, be suggested. The decoration of metalwork and pottery might, however, be quite unrelated and the similarity in distribution of the axe forms and Beaker decorative styles mere coincidence.

The continuity of decoration throughout the lengths of the axes might suggest that they were never designed to be hafted, otherwise the decoration would have been obscured by the haft and bindings.

Although the context of the hoard was not determined by excavation, it is certain from their depth that the axes were deliberately buried. Such deposition may have been purely for safekeeping, but evidence exists for burial as part of a sepulchral or ceremonial process.

The recent excavation of a prominent, natural long mound at Dail na Caraidh near Fort William, Scotland has uncovered the recurrent burial of flat axes and

dagger blades beneath, and near, settings of boulders some of which had been worked (Gourlay and Barrett forthcoming). The explanation of this apparently non-rational behaviour is elusive, although interpretations for similar customs have been offered (for example Evans 1881, 459; Bradley 1982; Kristiansen, 1979, etc.) Whatever the function of the axes or of the hoard, the discovery offers important evidence of the Early Bronze Age inhabitants of Norwich.

¹The southern edges of the cuttings were 1.5m and 3.5m respectively north of the northern gate post.

²Two fine decorated flat axes of comparable quality were found at Hockwold-cum-Wilton between 1975 and 1977. Original reports inferred that they were found in close proximity and may have been a hoard. However, subsequent information suggests that one was found at Leylands Farm (Site 5316) and the other at Blackdyke Farm (17541).

Later flanged axes occur in the hoards from Holywell Row, Mildenhall (4 examples), and Poslingford (17 examples) in Suffolk, and Wiggenhall St. Mary Magdalen (Site No. 2243; number unrecorded) Norfolk.

BIBLIOGRAPHY

- Bradley, R., 1982 'The destruction of wealth in later prehistory', *Man* 17, 108-22.
- Clarke, D. L., 1970 *Beaker Pottery of Great Britain and Ireland* (Cambridge).
- Clough, T. McK. and Green, B., 1972 'The petrological identification of stone implements from East Anglia', *Proc. Prehist. Soc.* 38, 108-155.
- Evans, J., 1881 *The Ancient Bronze Implements of Great Britain and Ireland* (London).
- Gourley, R. and Barrett, J. forthcoming 'Dail na Caraidh', *Current Archaeology*.
- Healy, F. M. A., forthcoming 'Farming and Field Monuments: the Neolithic in Norfolk', in Barringer, J. C. (ed.) *East Anglian Prehistory* (Norwich).
- Hughes, M. J., Cowell, M. R. and Craddock, P. T., 1976 'Atomic Absorption techniques in Archaeology' *Archaeometry* 18, 19-36.
- Kristiansen, K., 1979 'The consumption of wealth in Bronze Age Denmark: a study in the dynamic of economic process in tribal society', in Kristiansen, K. and Paludan-Muller, C. (eds.), *Studies in Scandinavian Prehistory and Early History*, I, 158-90 (Copenhagen).
- Lawson, A. J., Martin, E. A. and Priddy, D., 1981 *The Barrows of East Anglia* (*E. Anglian Archaeol.* 12; Gressenhall).
- Megaw, B. R. S. and Hardy, E. M., 1938 'British decorated axes and their diffusion during the earlier part of the Bronze Age', *Proc. Prehist. Soc.* IV. 2, 272-307.
- Needham, S., 1979 'The extent of foreign influence on Early Bronze Age axe development in southern Britain', in Ryan, M. (ed.) *Proceedings of the fifth Atlantic Colloquium, Dublin, 1979*. 265-293.
- Needham, S., and Saville, A., 1982 'Two Early Bronze Age Flat Bronze Axeheads from Oddington', *Trans. Bristol & Gloucs. Archaeol. Soc.* XCIX (1981), 15-19.
- Rowlands, M. J., 1976 *The Production and Distribution of Metalwork in the Middle Bronze Age in Southern Britain* (Brit. Archaeol. Rep. 31; Oxford).

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