

BROOMWOOD BRONZE AGE SETTLEMENT
ST. PAUL'S CRAY, KENT

By JOHN PARSONS

DISCOVERY

ONE September afternoon during the Battle of Britain in 1940 the writer, then a schoolboy, hastily took cover in one of the shallow depressions on the edge of the Broomwood hilltop as the battles raged in the skies above. Afterwards, looking for some "souvenirs" (as was the custom of schoolboys at that time) the author found a flint, shaped somewhat like an arrowhead, on the ground. This strange "souvenir" was sent in due course to the British Museum for confirmation. It was returned identified not as an arrowhead but certainly as being of human workmanship; so providing the first evidence of occupation.

Over the years periodic visits were paid to the hilltop and other flint artefacts were found within the area.

In 1952, on an occasional visit, the author was dismayed to discover that the Broomwood site was being devastated by bulldozers, prior to the erection of a church upon the hilltop. Permission was urgently sought to examine the area from the then priest-in-charge, the Rev. J. F. Sertin, B.A., who readily gave his consent.

Consequently, the writer was able to record certain features of the Broomwood site and take photographs before the complete destruction of the whole Bronze Age settlement. It is upon these details that the present report is based.

However, it is regretted that the Broomwood site should have been destroyed before full investigations could be made, as such sites are rarely reported in Kent. Fortunately, some account at least of the Broomwood Bronze Age homestead is placed upon permanent record in this report.

SITUATION

As previously stated, the Broomwood settlement was situated upon a hilltop (250 ft. O.D.) which was a natural defensive position, with a panoramic view of the surrounding countryside. The actual position of the site is N.G.R. 4650: 6915, and it lies some half a mile west of the Parish Church of St. Paulinus, overlooking the Cray Valley in the parish of St. Paul's Cray.

At present the newly-built church of St. Barnabas Cray crowns the hilltop formerly occupied by the Bronze Age encampment, and,

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no doubt, the site will be officially handed over to the new ecclesiastical authorities in due course, forming the nucleus of a new parish of St. Barnabas Cray.

The old name of "Broomwood" is derived from the abundant brooms, used in the past for basket and brush making by local people, which formerly edged the wood.

The name Broomwood now survives in a local road, and a public house recently erected nearby bears the same name.

BRONZE AGE ENCAMPMENT: BROOMWOOD

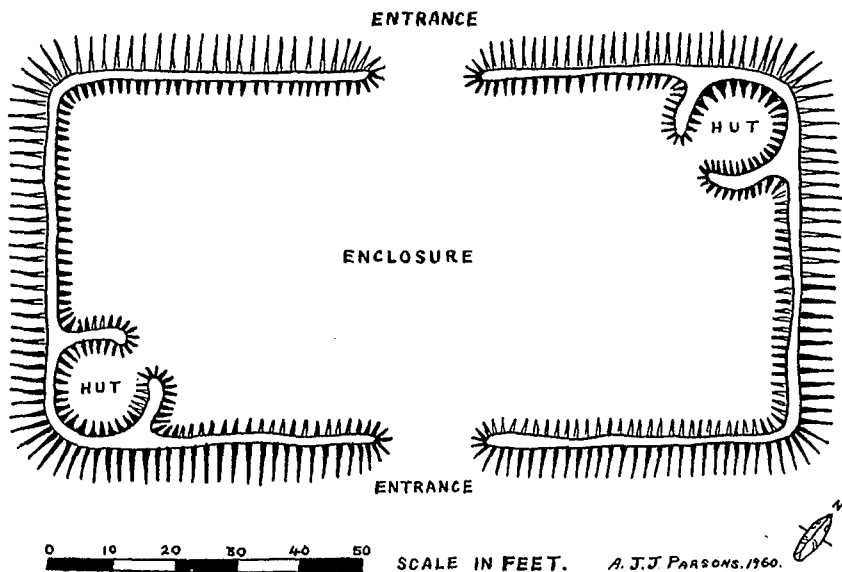


FIG. 1. Plan of Enclosure.

Broomhill and Bromley are other place-names in this part of North-west Kent with the same prefix.

Although water was not immediately available in the Broomwood site it could be obtained from a spring some 200 yards away to the west.

Geologically, the hilltop was capped with a deposit of black Blackheath Bed pebbles which covered the underlying Thanet Sands of the area.

The natural vegetation, if we may judge by the Broomwood, was composed of birch, chestnut, and elm, with oaks predominating upon the Bronze Age site itself. Most of these appeared to be less than a century old, but the Broomwood has existed at least since 1769 judging by Andrew's map of that time, and has never been under plough.

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Several old trackways pass near to the encampment, and these in some cases were deep "hollow-ways", although their prehistoric origin cannot be confirmed. At least one dene-hole (N.G.R. 4670 ; 6897) was in evidence within the boundary of the wood, and others may also have existed in the vicinity.

Bronze Age artefacts are common in Kent, but actual occupational sites of the period are rare. Only two other such sites are known in this area of N.W. Kent, one at Orpington (Goddington N.G.R. 4692 : 6500), and the other Hayes Common (where there is a concentration of hut circles, some at least of which are probably of Bronze Age date).

A brief mention of the Broomwood site has already appeared in the 1952 Report of the Cray Antiquarian Association (see *Archæologia Cantiana*, Vol. LXX (1956), 263). All finds from the site are at present in the possession of the writer. It is hoped to present them in due course to the Priory Museum, Orpington, when the reorganization of this building is completed.

DESCRIPTION

The Bronze Age encampment occupied a rectangular enclosure (measuring approximately 120 feet by 60 feet). bounded by banks formed by earth from the interior of the site. No trace of an exterior ditch was discovered.

In the centre of both the eastern and western sides of the enclosure the earthen banks had been cut through (see Plan). This feature may have indicated the original entrances to the encampment, although the western one could have been relatively modern, connected with the cultivated clearing between Broomwood and the neighbouring Hoblingwell Wood.

Inside the encampment two circular depressions (roughly 10 feet in internal diameter) could be observed in the north-west and south-east corners respectively. Each was surrounded by an earthen bank or wall : part of which was, in each case, incorporated into the main enclosure bank. Although it is possible that other hut circles may have existed within the enclosure, it was only possible to obtain a section through one during the destruction, and this is now described in detail.

First, it must be stated that the section was accidentally exposed during the bull-dozing of the site and may not represent a true cross-section of the hut site itself. The diameter of the hut as exposed was only 7 feet across internally. However, from the section (see Fig. 2) the following details can be observed :

- (a) The base or floor of the hut has been excavated into the natural soil to a depth of 2 feet below the present ground surface. However, the present surface may not represent the actual Bronze Age ground level inside the encampment.

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- (b) A small drainage ditch 6 in. deep and 18 in. wide has been dug round the hut. The lip of this ditch may represent the true ground level in the Early Bronze Age.
- (c) A large post-hole (diameter 6 in.) appears in the section. This has been sunk some 6 inches into the suggested ground level of the Bronze Age times. Another "stake-hole" can be observed in the edge of the drainage ditch, again sunk into the same surface level.

BRONZE AGE HUTMENT: BROOMWOOD ST. PAUL'S CRAY. A. J. J. PARSONS, 1980

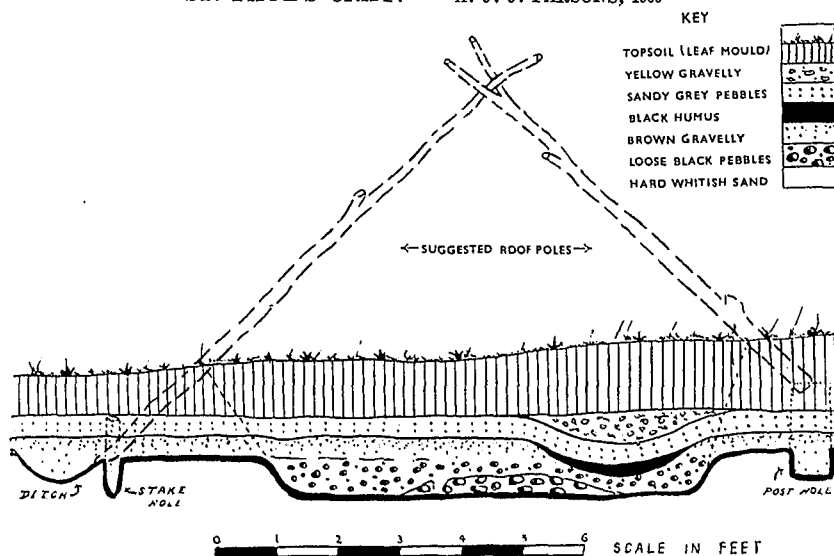


FIG. 2. Section Across Hut Site.

- (d) In the centre of the hut floor there appears to be a layer or platform of larger pebbles to a height of 4 inches above it.
- (e) The whole of these features mentioned above are dug into the hard whitish layer of natural Thanet Sand underlying the area.
- (f) Initial filling of the hut appears to be loose black pebbles from the surrounding capping layer of Blackheath Beds.
- (g) The hut and its associated features are sealed by a primary layer of brown gravelly soil, followed by subsequent layers of soil and humus (to an approximate depth of 20 inches).

Although no actual flint artefacts were excavated in situ from the above section, many were recovered from the immediate area of the hut. In all some 500 examples of worked flint were collected from the Broomwood hilltop, a selection of which is illustrated (see Appendix). No doubt many more existed on the site but could not be recovered during the destruction of the settlement by bulldozing.

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INTERPRETATION

The reconstruction of the Bronze Age habitation in Broomwood from the surviving section is not difficult, if we take into consideration examples discovered elsewhere and also similar constructions still being used by primitive peoples in other parts of the world today.

Initially, the site would be cleared by axemen. Then, several small trees would be selected and erected to form a conical structure. This would be secured at the top and anchored to the ground by means of stakes in a circle. Next, branches would be interlaced, basket fashion, between the main tree supports. Turf would be stripped from the surrounding area, and laid like tiles upon the timber frame of the structure. Finally, a small drainage ditch would be dug round the hut and so stop surface water flooding.

Internally, the hut floor would be dug out to a depth of 6 inches or so, and the excavated earth deposited to form a circular bank internally, securing the structure.

The hut entrance appears to be rather substantial, if one assumes that the 6 inch post-hole represents part of this feature. No doubt an equally strong timber served as a lintel above the doorway. No central post-hole for a roof support was detected in the section which, as previously mentioned, was not a true cross-section. However, the raised platform of pebbles observed in the centre of the recorded section of the hut floor may indicate the base for a central support.

No signs of an internal hearth were discovered. This is not unusual, as even in modern Spain the author has seen similar structures with cooking hearths built well away from the hut as a precaution against destruction by fire. Many calcined flints, or "pot-boilers", were found within the Broomwood encampment and these certainly suggest that hearths were used. Incidentally, the black area of humus discovered within the circumference of the Broomwood hutment (see Fig. 2) was decayed organic matter (possibly tree roots) which displayed no sign of burning.

DATING

As so few authentic Bronze Age occupation sites and structures are known in Britain, the author was reduced to compiling a list of reported prehistoric dwellings and making an Analysis Table in order to form some opinion upon the date of the Broomwood settlement.

Initially, of course, the Broomwood site was dated from the mass of flint artefacts which were discovered there, a selection of which was submitted to Mr. E. Alexander, O.B.E., of the British Museum, for expert examination, who kindly confirmed that they belonged to the Early Bronze Age (see Appendix).

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However, from following the Analysis Table of reported hut sites, it will be seen that prehistoric dwellings seem to conform to certain types, according to age. Agreed that later artefacts such as Roman pottery have been found in earlier types of construction, but, generally, each period of prehistory produces some distinct feature in domestic architecture. Doubtless there are exceptions, and the author is well aware of the limitations of any analysis on the subject.

It will be seen from a study of the Analysis Table that the Broomwood settlement can be safely assigned to the Bronze Age, possibly belonging to the period of the Beaker people (c. 1900-1800 B.C.), for the following reasons :

- (a) The site cannot be Mesolithic because of the complete absence of microliths, microburins, microcores, besides small flint flakes in quantity, which are the predominating feature of Mesolithic sites such as that found at Farnham, Surrey, etc. The author's local experience of Mesolithic sites at Orpington (Well Hill Excavation Report, see *Arch. Cant.*, Vol. LXV (1952) 174-7) and North Cray (*ibid*, Vol. LXX (1956) 262) confirm the impression that the Broomwood encampment is not of Mesolithic date.
- (b) Structurally the Broomwood hut circles bear no relationship to Neolithic dwellings because they are circular in shape whereas excavated huts of the Neolithic period are rectangular. Sites as far apart as Haldon, Devon ; Lough Gor, Ireland ; and Aichbühl, Germany, have confirmed this feature of Neolithic construction. Similar differences in shape exist between Neolithic long barrows and the circular barrows of the Bronze Age Beaker folk.
- (c) If we examine the Bronze Age habitation sites reported (see Analysis Table) it will be noticed that the huts are always circular in shape. The sizes of the dwellings range from 10 to 20 feet in diameter. The materials used in construction depend upon those immediately available in the area. However, those built of stone in timberless country such as Dartmoor tend to survive more than those made of less lasting materials, such as wood, in stoneless regions like N.W. Kent. It is from the former, i.e. stone constructions, that much of the knowledge of Bronze Age domestic architecture is derived. The features of the Broomwood site can be seen to be closely paralleled with Bronze Age buildings discovered elsewhere ; especially so in the case of the Beaker flint miners' huts on Easton Down, Salisbury, Wiltshire, where traces of earlier rectangular Neolithic buildings were also discovered on the site (see *Prehistoric Britain* by Grahame Clark (1953), p. 30).

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- (d) That the Broomwood settlement could be as late as the Iron Age need not be considered because occupational sites of this period yield a wealth of domestic rubbish, including much pottery—an item which was singularly absent from the Broomwood encampment.

APPENDIX

The Broomwood settlement, although thus dated to the Early Bronze Age, yielded no evidence of bronze or bronze working. This is not unusual on sites of this period because bronze was relatively rare and, consequently, would not be possessed by such a poor community as inhabited the Broomwood site during the period.

Due to the acidity of the soil no trace of wood, bone, or other occupational material, apart from worked flints, survived.

The flint flakes and implements could be divided roughly into two types, according to their patination. One type had the newness and blueness of struck flint, whilst the other type was bleached into a mottled grey-white discoloration. There were 175 of the former and 287 of the latter. Mr. Alexander commented as follows: "The implements fall into two distinct series characterized by the difference in the flint used and in the working. In spite of these differences I think that both series belong to the Bronze Age." As it appears that the hut circles once had a small drainage ditch round their perimeters, a feature not observed in connection with the larger enclosure bank, it is suggested that the huts were founded first and, some time later, an enclosure built to contain them. This possibly may explain the two kinds of flint artefacts which Mr. Alexander reports upon.

Calcined flint nodules or "pot-boilers" occurred in quantity, and some thirty-five specimens were collected of average diameter 2 inches.

Only one example of a hammer stone was found, but this exhibited all the features of a well-used implement. It weighed 10 ounces.

DESCRIPTION OF THE FINDS (FIG. 3)

- A. Semi-circular or "end" scraper of lustrous bluish flint with traces of an olive-coloured cortex and a white sub-cortex.
- B. Semi-circular scraper of fawn-coloured flint with whitish cortex remaining on unstruck surface. Steep scraping edge.
- C. Semi-circular scraper of bluish flint with rough chalky cortex partially covering the unemployed "face" of the implement.
- D. Fine semi-circular scraper with features similar to last specimen "C".

ANALYSIS TABLE
PREHISTORIC HUT SITES

Site	Shape	Size	Situation	Structures	Walling	Floors	Hearths	Features	Finds	Remarks	General Reference
FARNHAM	○	10 ft. dia.	North Downs	2	Earth	Sunken	"Potboilers"	Possible post-hole at entrance	Abundant artefacts	Hazel nuts found	<i>Proc. Prehist. Soc.</i> N/S Vol. V, Pt. 1 (1939).
FRENHAM	○	10 ft. dia.	North Downs	2	Earth	Sunken	"Potboilers"	"Working floors" unearthened	1,400 artefacts	12 per cent. burnt by fire	<i>Surrey Arch. Coll.</i> , Vol. 50 (1946-7).
NORTH CRAY	○	10 ft. dia.	North Downs	2	Earth	Sunken	"Potboilers"	Surface indication only	Microcore and blades	Not excavated	<i>Archaeologia Cantiana</i> Vol. LXX (1956).
N.K.	○	10 ft. dia.	N.K.	1	Earth	Sunken	Central	Thatched roof	N.K.	Realistic artist's impression	J. R. Garood, <i>Arch. Remains</i> (1946).

CONCLUSION : Mesolithic dwellings were small sunken pits of some 10 ft. diameter which yield vast quantities of micro-flints.

LOCH GUR	▭	32' × 20'	Lakeside	1+	Wood	Level	N.K.	Stone sleeper-walls	Rubbish pit : glass beads	Restored for T.V. programme	P. Johnstone <i>Buried Treasure</i> (1957)
AICHBÜHL	▭	30' × 20'	Lakeside	1+	Wood	Level	Central	Timbered Flooring	Pottery and wooden objects	Timber finely preserved	G. Clark, <i>Archaeology and Society</i> (1939).
HALDON	▭	20' × 16'	Moorland	1	Wood	Level	Corner	Stone sleeper-walls	Western Neolithic pottery	Kitchen recess in hut	J. C. Hawkes, <i>Prehist. Britain</i> , (1948).
RONALDSWAY	▭	24' × 12'	Island	1	Wood	Sunken	Central	Stone sleeper-walls	Pot and food bones under T/S	Floor sunk to 1½-2½ ft.	R. Place, <i>Down to Earth</i> (1954).

CONCLUSION : Neolithic Huts were rectangular wooden framed buildings with internal partitions and hearths

EASTON DOWN	○	N.K.	Moorland	1+	Wood	Sunken	N.K.	Built on ruins of rectangular Neolithic huts	M.B.A. cemetery nearby	Floor sunk to 6-18 inches	G. Clark, <i>Prehist. England</i> (1953).
BROOMWOOD	⊙	10 ft. dia.	North Downs	2+	Wood	Sunken	External	"Porch" T/S. stake holes	Flint artefacts	Drainage ditch	<i>Archaeologia Cantiana</i> , Vol. LXX (1956).
HAYES COMMON	⊙	10-22' dia.	North Downs	150+	Wood	Sunken	External	"Porch" T/S. external fire-pits	Flint artefacts	Quoted as "Neolithic"	A. E. Carey, <i>Pre-Man in E. Surrey</i> (1920 ?).
STANDON	⊙	20 ft. dia.	Moorland	60+	Stone	Sunken	N.K.	N.K.	"Grain Rubbers"	Associated with ½ acre "fields"	E. C. Curwen, <i>Plough and Pasture</i> (1946).
TY MAUR	⊙	15-20' dia.	Island	50+	Stone	Sunken	Central	"Porch" T/S. Walls 4-5 ft. high	Bronze tools under floor	Roman pottery recovered	B.M. Guide to Bronze Age (1904).
GRIMSPOUND	⊙	6-25' dia.	Moorland	10+	Stone	Sunken	Central	"Porch" T/S. Walls 4 ft. high	Round based pottery	Clay/Stone paved floors	G. Clark, <i>Prehist. England</i> (1953).
CHYSAUSTER	⊙	20 ft. dia.	Moorland	8+	Stone	Sunken	N.K.	"Porch" T/S. Walls 5½ ft. high	N.K.	Drainage system	The Chysauster Report (1928).
SKARA BRAE	⊙	14-20' dia.	Island	7+	Stone	Sunken	Central	"Porch" T/S. Walls 8 ft. high	Stone Axes and pottery	Drainage system	V. G. Childe, <i>Skara Brae</i> (1931).

CONCLUSION : Bronze Age habitations were circular in shape and usually had a "porch" or sheltered entrance and a central support for the roof.

Abbreviations : M.B.A. = Middle Bronze Age.
N.K. = Not known (information lacking).
T/S. = Table Stone/Stones possibly base for roof-support.

N.B. References quoted are main ones on sites listed, but also mention must be made of E.C. Curwen's *Archaeology of Sussex* (London, 1937) for further information on the subject of hut-circles.

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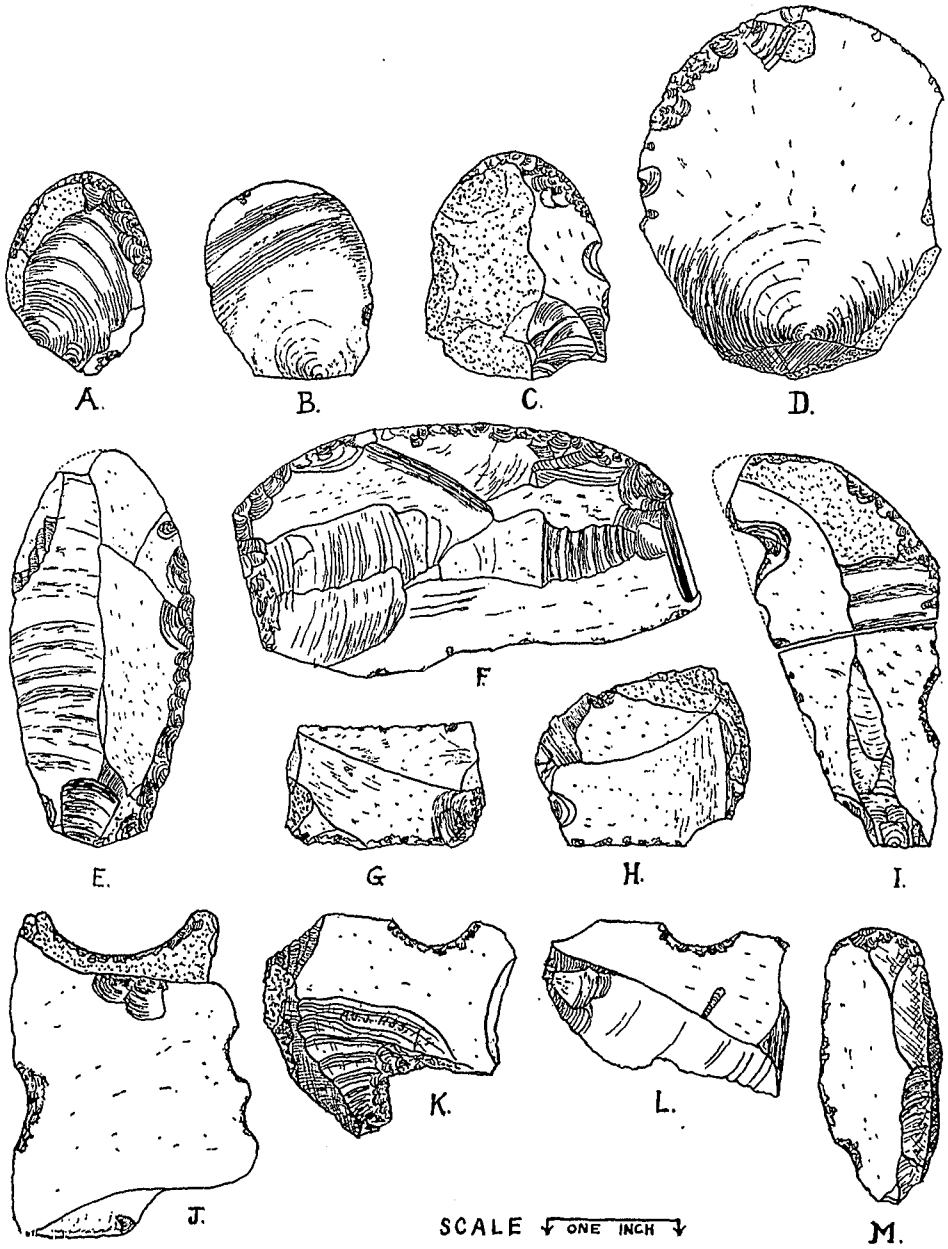


FIG. 3. Flint Implements.
Broomwood 4650/6915. St. Paul's Cray, Kent.

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- E.* Side scraper of most unusual form with a greyish-white patination. Strong "backbone" suggests that it may originally have been intended as a spearhead. Hafting flake has been removed from the butt. Triangular cross-section.
- F.* Large side scraper of grey-blue flint with several flakes removed from the length of its "backbone", perhaps to facilitate holding or hafting.
- G.* Small side scraper of greyish-white patination and traces of a chalky cortex.
- H.* Small side scraper of bluish flint, with remains of a chalky cortex as last.
- I.* Bluish banded blade of somewhat Mesolithic appearance, with hollows worked on both edges. Treatment at butt suggests hafting. Chalky cortex.
- J.* Multitudinal shaft scraper or "hollow scraper" with worked hollows of one inch, half inch, and quarter inch diameter, possibly used for the preparation of spear and arrow shafts. (Compare B.M. *Guide Stone Age* (1926) Figs. 114 and 211.)
- K.* Shaft scraper with half inch diameter notch. There is also a secondary feature—a right-angled scraping edge.
- L.* Arrow shaft scraper, similar in features to the last specimen.
- M.* Combined blade and end scraper with possible indications of hafting at the butt end. Mottled greyish-white flint. (Compare type of implement see B.M. *Guide Stone Age* (1926), Figs. 64, 140, 199(g).)

Mr. Alexander, of the British Museum, further commented as follows: "The three scrapers (B, C, D,) from Broomwood are rather rough and degenerate Bronze Age types, although the big one (D) is a fine specimen. I should date them rather late in the Early Bronze Age. One cannot say for certain what scrapers such as your Broomwood ones were used for—doubtless a variety of purposes. I hope that the Maidstone Museum people saw the Broomwood site before it was bulldozed. Bronze Age hut sites are not too common."

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