SOME REMARKABLE FLINTS FROM WEST SURREY MESOLITHIC SITES

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THESE notes aim at recording some detail of several outstanding implements collected from various sites of West Surrey provenance. Much of this material has been excavated from blown-sand deposits on the Greensand. In each instance these brief studies contribute something to our gradually extending knowledge of the fascinating Horsham culture with which the West Surrey Greensand area is so richly associated.

The notes are arranged in two sections. Section A describes a remarkable group of implements—the curved points from Spreakley and Bron-y-de sites; Section B deals with some new evidence bearing upon the technique of microlith manufacture and in this section the notes dealing with Horsham points are of particular interest.

A. Curved Points.

I am indebted to my friend L. S. V. Venables for the opportunity of examining in detail his collection of curved points. The majority of these remarkable implements were surfaced from two sites south of Farnham—one at Bron-y-de[1] on the lower slopes of the foothills north of Hindhead, and the other at Spreakley,[2] just west of Frensham village and north of the Wey stream. Incidentally, both sites are now inaccessible; Bron-y-de site is covered with glasshouses and Spreakley is sealed in by a pastured orchard. The collection consists of some fifty specimens of which four were taken from Mesolithic workshop floors in blown sand in the Kettlebury[3] area.

A representative collection of these points was exhibited at Burlington House in 1933 before the Prehistoric Society[4] and although many eminent authorities on Stone Age cultures carefully inspected the exhibits no one was able to throw any light on the implements or to connect them with any flint industry. Further, the writer has not succeeded in tracing any reference to the type

[1] *Proc. Prehist. Soc.*, N.S., Vol. V, Pt. I, 1939, p. 114, Site No. 39.
[2] *Ibid.*, p. 115. Site No. 30.
[3] *Ibid.*, p. 114. Site No. 34.
[4] *Proc. P.S.E.A.*, Vol. VII, Pt. II, 1933, p. 276.

FIG. 1.—CURVED POINTS FROM SPREAKLEY AND BRON-Y-DE.

Scale ½.

in a wide range of Stone Age literature. They are unique and apparently extremely localised in distribution.[1]

Thirty-three of these curved points are figured in Fig. 1. They exhibit some variety as regards size, curvature and shaping technique. In each case, however, the curvature is effected by the shallow notching of one edge of a primary flake—sometimes on the left edge and sometimes on the right. The shaping which in many instances is pleasingly precise has been arrived at by blunting and trimming comparable with the best work seen in Mesolithic retouch.

Usually the point is sharp and strong. The blunting and flat trimming, together with the occurrence of some specimens in proved Mesolithic floors, are sufficient evidence of the Horsham culture affinity of these unique and elegant points.

Classification.

Typologically these curved points fall into two main groups, viz. :—

Group A—points with bulbs intact.

Group B—points with bulbs either entirely or partially removed.

Notes.

(*a*) In both groups the edges are blunted and trimmed. The concave edge is usually deliberately blunted ; an interesting exception to this is seen in Fig. 1, No. 11, which shows inverse retouch.

(*b*) Both groups contain left and right curvatures in equal proportions.

(*c*) A small interesting sub-group of three specimens (Fig. 1, Nos. 31, 32, 33), with bulbs partially removed, is tentatively attached to Group B. These have notched bases exactly similar to hollow based points—in fact at first sight these specimens might be mistaken for such points. But each specimen displays a remnant of a bulb which conclusively indicates that they are not hollow based points. All three points, viz. Fig. 1, Nos. 31, 32 and 33, were found on Bron-y-de site.

Description of Fig. 1.

Nos. 1 to 14 belong to Group A with bulbs intact.
Nos. 15 to 30 form Group B with bulbs either entirely or partially removed.
Nos. 31, 32 and 33 form a limited sub-group tentatively linked with Group B ; they have notched bases and their bulbs are partially removed. In connection with this small group reference to Fig. 4, Nos. 1 and 2 will show how these three points differ from hollow-based points, or Horsham points, which they so strongly resemble.

Provenance.

From surface : *Spreakley*—Nos. 1, 2, 8, 9, 12, 14, 15, 16, 19, 20, 23, 24, 25, 28, 30.
Bron-y-de—Nos. 3, 4, 6, 7, 11, 13, 17, 21, 26, 27, 29, 31, 32, 33.
Excavated : *Kettlebury*—Nos. 5, 10, 18 and 22.

[1] Since Fig. 1 was prepared I have seen a curved point of brown flint from Dr. Wilfrid Hooper's collection which belongs to the bulbar group. It was found at Wotton.

B. The Manufacture of Microliths.

I. Intermediate Forms.

The specimens described in this section and figured in detail in Fig. 2 have been selected as evidence of the methods employed by the Mesolithic flint workers in the manufacture of microliths and particularly in developing microlithic types of which there are several. These studies mainly refer to the penknife point (Clark's Form C) and triangles (Form D). All microliths were prepared by an ingenious process known as the notch method[1] and this particular technique by which strong, sharp microlithic points were produced from the stoutest part of slender, primary flakes probably represents the highest level of ingenuity ever attained by any Stone Age craftsman. By this method a notch more or less semicircular in contour was made on a flake edge—see Fig. 2, No. 1 (*a*)—usually close to the flake base which was subsequently removed by an obliquely directed blow or, in some instances, by snapping. This detached basal portion shown in Fig. 2, No. 1 (*c*), which in all probability will always be referred to as a micro-burin[2] (or pygmy graver), was simply a by-product in the making of microliths. These basal rejects never functioned as implements[3]; they abound in every Mesolithic workshop floor.

Sometimes for some good reason this basal part was never detached and an intermediate form as figured in Fig. 2 resulted. From various West Surrey sites we have collected a series of these intermediates which illustrate how the various stages of development of specific microlithic types proceeded. Several intermediate forms have already been noted and published[4] but in the main they refer only to the development of the obliquely blunted point (Clark's Form A), the most common microlithic form.

In Fig. 2 a series of intermediates is figured; each of these specimens was taken from a Mesolithic workshop floor in blown sand. Exact provenance is stated and the numbers in brackets after the site references are those in the Schedule of Mesolithic Sites in the Farnham District published in the *Proceedings of the Prehistoric Society*, Vol. V, Pt. I, 1939 (Jan.-July), p. 112.

[1] J. C. D. Clark, "The Classification of a Microlithic Culture," *Arch. Journ.*, Vol. XC (1934), p. 70.

[2] *Ibid.*, 71.

[3] See *Guide to Antiquities of the Stone Age*, B.M., 1926, p. 90, Fig. 83. It is stated that marks of usage invariably appear along the attenuated edge; the writer has never discovered any such marks in the course of examining many hundreds of specimens from Mesolithic floors.

[4] Clark, *op. cit.*, p. 70, fig. 90. W. F. Rankine, "A Mesolithic Site at Farnham," *S.A.C.*, Vol. LXIV (1936), p. 36, Fig. 5 (16, 17, 18). Clark and Rankine, "Excavations at Farnham," *Proc. Prehist. Soc.*, N.S., Vol. V, Part I, (1939), p. 88, Fig. 18 (2, 8).

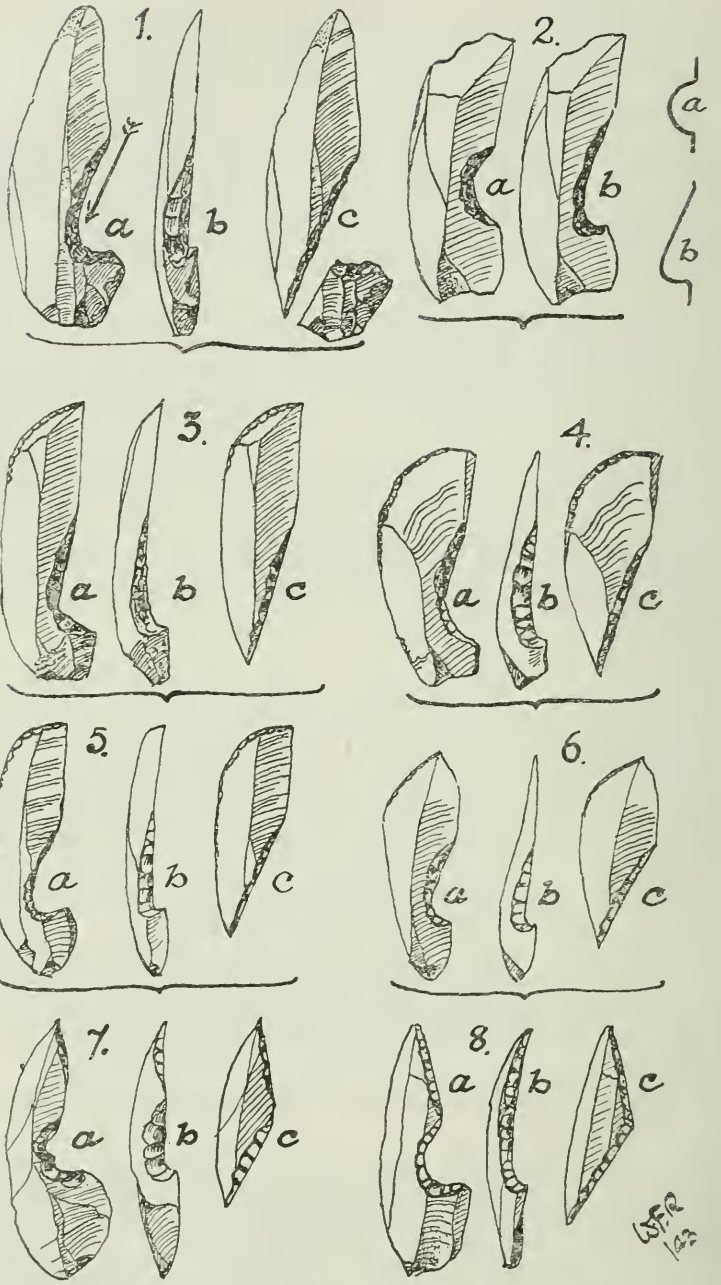

FIG. 2.—INTERMEDIATE FORMS.
Scale ½.

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Description of Fig. 2.

No. 1. *Kettlebury* (34). Nearly black flint.

(*a*) Primary flake notched and prepared for detaching blow in direction indicated by arrow.

(*b*) Side view of notch showing blunting effected by vertically applied force.

(*c*) Theoretical figure indicating microlith as it could have appeared after separation and completion of blunting—also basal reject. In this instance the microlith would have been an obliquely blunted point=Form A (Clark).

No. 2. Theoretical figures showing :—

(*a*) More or less semicircular notch of initial stage and

(*b*) widened and deepened notch ready for detachment.

No. 3. *Jumps Moor* (35). Light brown flint.

(*a*) Intermediate ready for separation ; note that the microlith unit is already blunted at flake tip.

(*b*) Side view of blunting.

(*c*) Resultant microlith in this case would have been a penknife point= Form C (Clark).

No. 4. *Kettlebury* (34). Transparent chalcedonic flint.

(*a*) Intermediate similar to Fig. 3 (*a*). Note the shaping retouch at flake tip.

(*b*) Blunting of notch.

(*c*) Resultant microlith=Form C.

No. 5. *Kettlebury* (34). Transparent chalcedonic flint.

(*a*) Intermediate resembling No. 3 (*a*). Note shaping of microlith at flake tip.

(*b*) Blunting.

(*c*) Resultant microlith=Form C.

No. 6. *Kettlebury* (34). Semi-transparent flint.

This resembles No. 5 except that the notch is in the initial phase ; resultant microlith would have been a Form C.

No. 7. *Jumps Moor* (35). Greyish-black flint.

(*a*) Intermediate. Note position of notch—half-way up flake at thickest section ; apparently two notches have merged into one. Tip shows blunting on right edge and probably a tip reject has been detached by notch technique.

(*b*) Blunting ; note position of notch in relation to maximum thickness of flake.

(*c*) Resultant microlith would have been a fairly regular triangle= Form D, 1 (*a*).

No. 8. *Kettlebury* (34). Semi-transparent flint.

(*a*), (*b*) and (*c*) as in previous note. The truncation of flake beds and thickness of blunting at tip of flake show that a tip reject has been removed. Resultant microlith would have been an isosceles triangle =Form D, 1 (*a*).

PROCESSES OF MICROLITH MANUFACTURE.

From the foregoing studies the processes by which microliths were fashioned from primary flakes may be summarised thus :—

(1) Development of a semicircular notch (see Fig. 2, No. 2*a*) by pressure applied vertically from the under-surface of a primary flake usually on the right edge and at varying distances from the basal extremity. In the majority of cases the position of notch coincides with maximum thickness of primary flake.

(2) Development of this notch (see Fig. 2, No. 2*b*) so that upper part straightens out to align with blunted side of microlith and the lower part is sunk to facilitate separation.

(3) The microlith is shaped by trimming or blunting.

(4) Removal of basal reject either by striking or snapping.

(5) Blunting of negative facet produced by separation.

Notes.

(*a*) The primary flake is assumed to be held at the basal extremity with regard to right or left edge.

(*b*) In the production of triangular geometrics a tip reject is removed by notch technique as described in Section B, III, in the making of Horsham points.

(*c*) Process 5, blunting of negative facet, is elaborated in the following study which deals with assembled intermediates.

II. Assembled Intermediates.

A careful scrutiny of any series of microliths taken from a workshop floor will reveal examples of unfinished points. These are microliths which show a negative facet produced by detachment from the basal reject as described in the foregoing summary. Many of these imperfect microliths were met with during the investigation of the Farnham Pit Dwellings and others have come to hand from time to time from West Surrey sites in blown sand over the Greensand. If all the basal rejects from such floors are carefully retained there is a possibility of reassembling them with the microliths from which they were separated and in the case of unfinished points, *i.e.* those with negative facets, unchallengeable refits may be effected.

Fig. 3 illustrates a selected series of such assemblies. Of the twelve examples figured, eight involve assemblies of imperfect microliths with their original basal rejects. In the other four examples similarity in colour of flint, alignment of flake ridges and matching of peculiarities of flint texture indicate that the basal reject and microlith were originally joined.

In all the examples the position of the notch with reference to the bulbar end of the primary flake is noteworthy ; sometimes it was developed close to the bulb and sometimes half-way between butt end and tip and so large and fantastically small basal rejects occur. In every case the object of the microlith maker was to ensure that the microlithic point should be produced from the thickest—and therefore strongest—section of the flake.

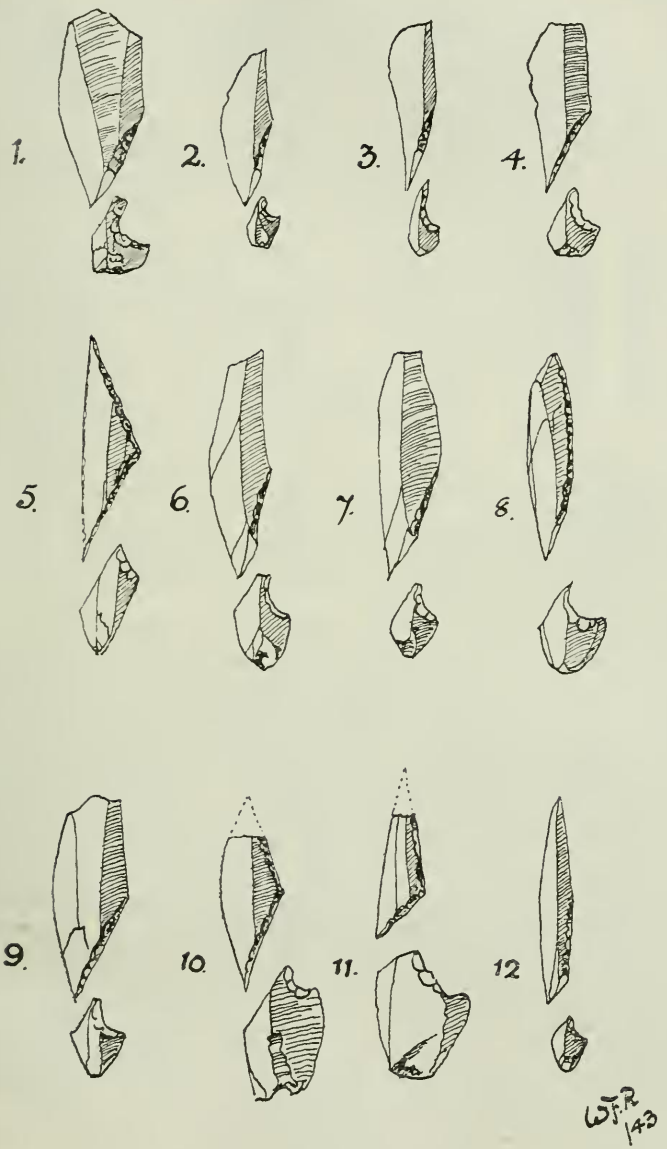

FIG. 3.—ASSEMBLED INTERMEDIATES.

P. 14. *Scale* ½.

Description of Fig. 3. Assembled Intermediates.

No. 1. *Kettlebury* (34). Obliquely blunted point (Form A) with negative facet. Point and basal reject fire cracked.
No. 2. *Frensham Great Pond* (31). Black flint. Obliquely blunted point (Form A) with negative facet.
No. 3. *Kettlebury* (34). Brown flint. Obliquely blunted point (Form A) with negative facet.
No. 4. *Kettlebury* (34). Form A with negative facet. Semi-transparent flint.
No. 5. *Frensham Great Pond* (31). Complete isosceles triangle (Form D, 1 (*b*)). Texture of flint and matching of ripples as well as alignment of flake ridges indicate that these two units derive from same primary flake.
No. 6. *Kettlebury* (34). Form A with negative facet. Black flint.
No. 7. *Frensham Great Pond* (31). Form A with negative facet. Black flint with inclusions.
No. 8. *Kettlebury* (34). Form A with negative facet. Yellowish flint.
No. 9. *Kettlebury* (34). Form A with negative facet. Dark flint with inclusions.
No. 10. *Kettlebury* (34). Form A with negative facet. Semi-transparent flint.
No. 11. *Kettlebury* (34). Subtriangle (Form D, 5). Dark flint.
No. 12. *Frensham Great Pond* (31). Form A with negative facet. Dark flint.

Notes.

(*a*) All specimens were excavated from blown-sand floors and are not patinated.
(*b*) Numbers in brackets after site references as in description of Fig. 2.
(*c*) In No. 5 the upper point of triangle has been developed by the removal of a tip reject as described with reference to Fig. 4, Nos. 6 and 7.

III. Horsham Points (Hollow based points=Form F, Clark).

This microlith to which Clark gave the name of Horsham point is one of the most symmetrical in the whole range of microlithic types. A thick, straight blunted edge runs from the point to a notched base ; the other edge is curved and shaped at the basal end by dainty trimming. The basal notch is developed by retouch applied either from the upper surface or vice versa. A careful inspection of a number of specimens will reveal that in the majority of instances the pressure rings, when evident on the under-surface, are concave or open to the pointed end of the microlith but sometimes the ripples, or pressure rings, are concave to the basal notch. Another striking feature in the majority of cases is the position of the flake median ridge which usually lies diagonally on the upper-surface of the microlith and is frequently intercepted by the thick blunted edge. Reference to Fig. 4, No. 1, will make this description clear. From these two features—the position of the pressure rings relative to the point or basal notch and the diagonal run of the flake median ridge—it is possible to infer how the Horsham point was developed from the primary flake.

Fig. 4, No. 1 (*a*) figures a typical Horsham point and (*b*) shows the under-surface with pressure rings concave to the point ; (*c*) is a theoretical reconstruction of an intermediate form showing how the notch technique was applied in the development of this type of microlith. No. 3 (*a*) shows an imperfect Horsham point

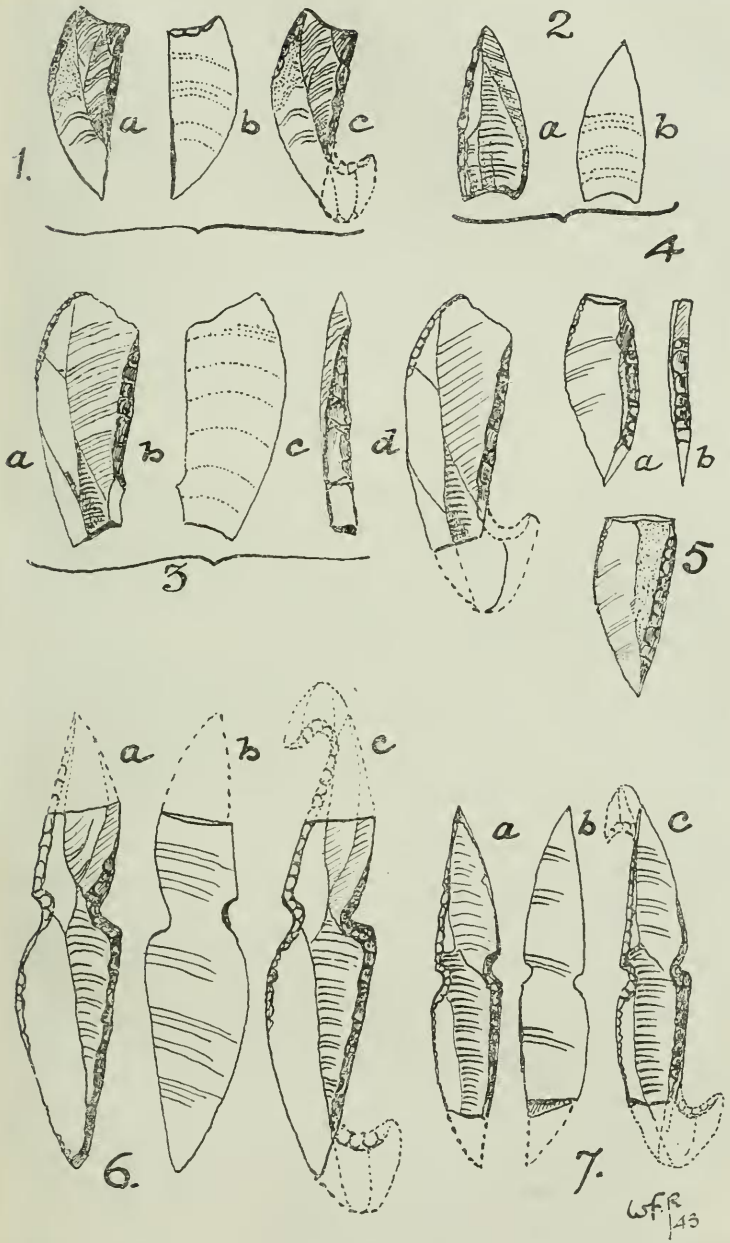

FIG. 4.—HORSHAM POINTS.
Scale ½.

Pp. 14-16.

with an undeveloped negative facet and the basal notch not developed; (*c*) figures the blunting detail and a portion of the undeveloped negative facet while (*d*) is another theoretical reconstruction of the intermediate form. Sometimes unfinished points, like 4 and 5, occur which prove that the Horsham point was developed by notch technique. Two fortunate discoveries—the finding of the specimens figured in 6 and 7—prove that occasionally Horsham points were developed in a twin form—an ingenious device by which points were produced two at a time from one primary flake. No. 6 (*a*) shows unseparated twins with the upper point—the point formed at the flake tip—removed by fracture, (*b*) shows the under-surface and disposition of the pressure rings and (*c*) is the reconstructed intermediate which indicates that two notches were made—one at the flake tip and one at the base. A parallel example is figured in No. 7; in this case the lower point met with misfortune; (*b*) shows the pressure-rings, and (*c*) the reconstructed intermediate. Here again two notches were developed.

It is interesting to note that in each twin combination the straight edges of each point are completely blunted. Obviously the twins were separated by snapping and the bases subsequently notched. In this connection Nos. 4 and 5 throw some light on the subject; both microliths have undeveloped bases which exhibit snap fracture, and 4 shows an undeveloped negative facet.

It is obvious that the twin method of production must result in some Horsham points with pressure rings concave to their bases. No. 2 (*a*) and (*b*) show such a point, and it is noteworthy that the median flake ridge in this instance runs from point to base and not diagonally as in the majority of specimens. Four such forms of Horsham points have come to the writer's notice and each of them is evidence of the twin method of Horsham point production.

Description of Fig. 4: *Horsham Points.*

No. 1. (*a*) Horsham point (Kettlebury); (*b*) under-surface showing pressure rings concave to tip; (*c*) theoretical reconstruction showing point with basal reject.

No. 2. (*a*) Horsham point (Kettlebury), showing median ridge running from tip to base; (*b*) under-surface showing pressure-rings concave to base.

No. 3. (*a*) Imperfect point, fractured near tip, showing portion of negative facet where blunting ceases; (*b*) shows pressure rings concave to tip; (*c*) shows detail of blunting and part of negative facet; (*d*) is theoretical reconstruction of microlith assembled with basal reject. Spreakley.

No. 4. Imperfect Horsham point undeveloped negative facet and snap fracture.

No. 5. Imperfect point showing completed blunting of straight edge and undeveloped base with snap fracture.

No. 6. (*a*) Unseparated twin points; (*b*) under-surafce showing disposition of pressure rings; (*c*) theoretical reconstruction showing primary flake and notching processes.

No. 7. (*a*) Another pair of points; (*b*) under-surface and pressure-rings; (*c*) reconstruction as in No. 6 (*c*).

IV. Gravers.

Essentially a graver is a strong flint flake from the tip of which a splinter has been sliced longitudinally to form a cutting angle which strongly resembles a modern mortising chisel. (See Fig. 5.) Until recent years the graver was exclusively associated with the Epi-palæolithic industries of the French caves and it was widely accepted as the instrument by which the cave pictures were sculptured. This industrial interpretation, however, cannot be extended to the gravers of West Surrey.

The first record of the graver in West Surrey provenance appears on page 78 of the *Guide to Antiquities of the Stone Age*, British Museum, 1926: "Excavations carried out at Snailslinch Farm, ½ mile east of Farnham station, by Major Wade were successful in finding a number of undoubted gravers (Fig. 68)."[1] The date of the digging is not recorded. The site was on the slope above the railway at Snailslynch—a famous flinting-ground before it was built over. About 1926 gravers began to come to hand from several surface sites in the Farnham region and eventually during the investigation of the Pit Dwellings in 1938 and 1939 numerous specimens were secured. The West Surrey graver is a type implement of the Mesolithic culture and most probably functioned in connection with a bone industry. Many specimens have been recorded and they form an interesting and important group; one of their outstanding characteristics is their striking resemblance to the famous burins of Aurignac.

From a number of gravers which have come under the writer's notice five typical examples have been selected and figured on Fig. 5. Of these No. 1 is outstanding; it is a superb specimen and is comparable with the cream of French cave burins. Not only is it a double-ended graver and perfectly cut, but it is, in addition, fashioned from perfectly homogeneous flint of a greenish-brown colour—a material very rare in West Surrey. Incidentally this graver was surfaced from one of the Moor Park sites (Farnham), and this site has yielded several other examples. No. 2 (after Grahame Clark) is a single-ended graver exhibiting cleanly-cut facets; it was excavated from Pit II (Farnham). No. 3 is a heavier example of greenish-brown flint; its backing is well developed. It is a single-blow graver which has been sharpened; it was surfaced on Moor Park site. No. 4 is a small graver, sharpened, and surfaced from a site near Ewhurst. No. 5 came to hand during the preliminary investigation of the Sand Hole near Pit IV (Farnham) and is an excellent example of the light type of graver. These five examples present a range of light, medium and fairly heavy gravers.

The abrupt retouch or backing exhibited in Nos. 3 and 5 suggests

[1] The drawings are not particularly graphic but the three examples figured are single-blow or angle gravers. Some years later these flints were assigned by R. A. Smith to the Mesolithic period.

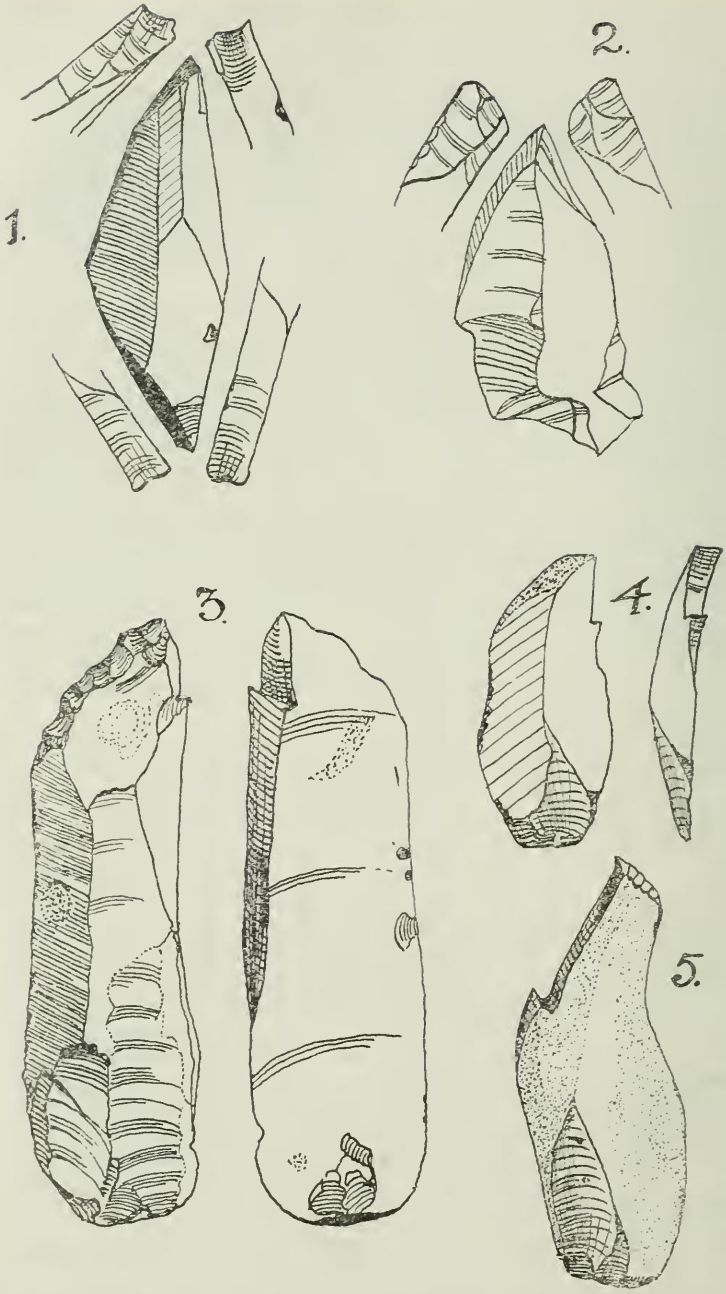

FIG. 5.—GRAVERS.

Pp. 17-19. *Scale* ½.

that the truncated flakes which are always present on Mesolithic sites may possibly represent the first stage in the manufacture of a graver.

In conclusion it should be emphasised that in the field gravers are easily overlooked on account of their unpretentious appearance and this possibly explains why so few have been recorded from Surrey sites generally.

Description of Fig 5 *: Gravers.*

No. 1. Double-ended graver of remarkable symmetry ; greenish-brown flint. Surface, Moor Park (*B*). See *S.A.S., Preh. Farnh.*, p. 101, Fig. 41, 5.

No. 2. Graver from Pit Dwellings, Farnham. After Clark. See *Proc. Prehist. Soc.*, N.S., Vol. V, Pt. I, (1939), on p. 80, Fig. 12, 5.

No. 3. Single-blow graver of greenish-brown flint ; backing well developed. Surface, Moor Park. *S.A.S. Preh. Farnh.*, p. 101, Fig. 40.

No. 4. Small single-blow graver. Surface near Ewhurst.

No. 5. Single-blow graver from Sand Hole, Pit Dwellings ; backing well developed.