THE 1973 TEST EXCAVATION AT LES TAMBOURETS

PRELIMINARY REPORT

Harvey M. Bricker
(Tulane University)

This is the English version of a report submitted to the French government. A final report on the test excavation, including the results of the analysis of sediments, will be published at a later date. PLEASE DO NOT CITE OR QUOTE THIS PRELIMINARY REPORT WITHOUT PRIOR PERMISSION OF THE AUTHOR.

REPORT OF THE 1973 TEST EXCAVATION AT LES TAMBOURETS

Harvey M. Bricker
Assistant Professor of Anthropology
Tulane University

I. Introduction

Les Tambourets is a prehistoric site located in the Commune de Couladère (Haute-Garonne), in southwestern France (Fig. 1). The site covers much of the top of a low hill on the right (south) bank of the Garonne River, situated in such a fashion that it dominates the confluence of the Garonne and its right-bank tributary, the Volp (just east of the limit of the map shown in Fig. 1). The majority of the known extent of the prehistoric site is owned by M. Yvon DUBOIS and is currently being cultivated by M. Léopold SENTENAC. Traces of the Palaeolithic industry are visible on the surface of the plowed field and in the outcrop of the archaeological level in the road cut along route D. 62 on the southern edge of the site (Fig. 1). Les Tambourets was signalled as an open-air Châtel-perronian site by the late M. Louis MEROC in several publications of the 1950's and 1960's. Although M. MEROC conducted no major excavations at the site, he obtained a very large series of pieces collected mainly from the surface of the field and from various cleanings of the D. 62 road cut. This collection was not available for my examination in 1973 (because of the dislocations attendent upon the deaths of M. and Mme. MEROC), but it is apparently still in the keeping of the MEROC family and will be available for examination at a later date. A much smaller series, collected from the surface of the field during the late 1960's by M. PORTET (who resides on the southern edge of the site), is among the collections of the Depôt de Fouilles of the Circonscription des Antiquités Préhistoriques de Midi-Pyrénées at Toulouse.

II. The Test Excavation of 1973

In a letter dated 2 June 1973, from M. Jean CLOTTES to M. Harvey M. BRICKER, I was authorized to conduct at Les Tambourets a test excavation that would affect eight square meters of the archaeological level and that would be carried out between 5 July 1973 and 5 August 1973 (Direction Régionale des Antiquités Préhistoriques de Midi-Pyrénées, autorisation no. 73-133). Under the terms of this authorization, and with the permission of M. DUBOIS and the cooperation of M. SENTENAC (to whom I paid an indemnity of F. 200,00 for damage to his crop), I carried out a test excavation near the southern edge of the site. The cost of my travel to and from France was paid from a grant to me by the Tulane University Senate Committee on Research. The other costs of the test excavation were paid from my personal funds. No application for financial support was made to the French government.

The test excavation was made under the co-direction of myself and M. J.-F. ALAUX. I was assisted throughout the period of excavation by Mlle. Amy GARDNER, a student of anthropology and prehistory at Tulane University, and at various times during the project by Mme. Victoria Reifler BRICKER, professor of ethnology at Tulane, and M. Arden R. KING, professor of ethnology and prehistory at Tulane. The preliminary study of the geological situation of the site and the collection of samples for sedimentological and palynological

analysis was done by M. Henri LAVILLE (associé au C.N.R.S., Université de Bordeaux I). M. LAVILLE spent several days at the site during the month of July. The project was inspected on two occasions by M. CLOTTES, Directeur Régional des Antiquités Préhistoriques.

Preliminary cleaning of the road-cut section along route D. 62 indicated that the archaeological level identified by M. MEROC lay almost one meter below the modern surface at that point (on the southern edge of the field containing the majority of the site). Examination of the surface of the field indicated that the archaeological level cropped out further north and that in much of the field it was seriously disturbed by plowing or even removed by erosion and agricultural activities. Accordingly, I decided to make my test excavation along the southern border of the field, just north of route D. 62. A grid was established parallel to the limits of the field and oriented approximately to the cardinal directions (the "north" of the grid system is ca. 9° west of geographic north). Two squares, 2 m. by 2 m., were prepared for excavation, Square A on the south and Square B immediately contiguous to the north (Fig. 1). This grid system was related by measurements to a series of three iron stakes set into the line of brambles along the uncultivated southern border of the field; these stakes, which were left in position at the end of the test excavation, could serve as orientation points to re-establish the 1973 grid system in future years. The area surrounding Squares A and B was enclosed with a fence to hinder the entry of unauthorized visitors. (Happily, unauthorized visitors were not a problem during the 1973 operations; the residents of the region extended me their full cooperation in this and all other respects.) Finally, a temporary portable shelter of metal, plastic, and split cane was constructed to protect the area under excavation.

Acting upon the advice of M. CLOTTES, I had the plow zone in the two squares removed by local workmen using picks and shovels. All other excavation was done by myself and my associates using the small hand tools (crochets, etc.) that are customarily employed by French prehistorians. The coordinates of all recognized artifacts (retouched tools, waste flakes, nuclei, broken river stones) were recorded to within one centimeter in three dimensions. The lateral coordinates (north-to-south and west-to-east in each square) were measured directly from strings aligned to the grid system. The vertical coordinate (depth) was measured in centimeters below the site zero point using a tripod-mounted optical level. The site zero point was defined as the top of one of the metal stakes previously mentioned. According to my own survey to that stake from a geodetic bench-mark located at the intersection of routes D. 62 and D. 6 (ca. 200 m. from the test excavation), the elevation of the site zero point is approximately + 270.43 m. (Fig. 1). Photographs in color and black-and-white were taken at frequent intervals during the operation, but because no photographic tower was used in the test excavation, no attempt was made to construct a formal photographic map of the excavated area. The entire eight square meters were excavated to the base of Couche B; a deeper test pit was dug in the northeast corner of Square A, sampling Couches C and D (see below). At the end of the test excavation, the shelter and fence were dismantled, and the hole was filled mechanically by M. SENTENAC. At the present time (winter 1973/1974), the area of the 1973 test excavation is once again under cultivation.

With the accord of M. CLOTTES and by authorization of the Ministère des Affaires Culturelles (Attestation of 10 August 1973, by the Directeur des Musées de France), I transported the archaeological material coming from the 1973 test excavation to my laboratory at Tulane University, New Orleans,

Louisiana, United States of America, in order to carry out typological studies. I am authorized to retain this material on loan for a period not to exceed eighteen months, after which it will be returned to the Depôt de Fouilles of the Circonscription des Antiquités Préhistoriques de Midi-Pyrénées at Toulouse.

III. Stratigraphy

The combined observations of the archaeologist (HMB) and the geologist (HL) permit the provisional recognition and definition of four geological levels and one archaeological level in the area affected by the 1973 test excavation (Fig. 2). These results are subject to revision in light of the detailed analyses now being carried out under the direction of M. LAVILLE. The descriptions of the geological levels given below are for the most part quoted from the notes of M. LAVILLE.

Couche A. Thickness = 30-40 cm., depending on the location. This is the plow zone, a silty-clayey sediment of friable consistency and dark brownish-yellow color (F63 to F64 of Cailleux and Taylor), containing a few rare quartz pebbles. The base of this level is often undulating. Couche A contains a few stone tools indistinguishable from those of Archaeological Level 1, rare potsherds, and miscellaneous modern debris.

Couche B. Thickness = 35-50 cm., depending on the location. Because the base of this level is more steeply inclined than the modern land surface, thickness diminishes toward the north. (Indeed, Couche B crops out ca. 15 m. north of square B, and this has resulted in the destruction of the archaeological level in that area.) Couche B is also a silty-clayey sediment, of loessic texture and dark brownish-gray color (E to F61 of Cailleux and Taylor). There are throughout the thickness of this deposit stained spots and indurated nodules whose origin can not yet be determined. These nodules, which are dispersed at the top of the level, become progressively more abundant toward the base as the sediment acquires a more firm consistency. Some artifacts are found throughout the thickness of this level, from top to bottom, but they are densely concentrated in the basal 10-12 cm., which are here recognized as constituting Archaeological Level 1.

Archaeological Level 1 is the basal portion of Couche B. In addition to the characteristics mentioned above, one notes the presence of miniscule and widely scattered fragments of wood charcoal (the largest fragment observed had a maximum dimension of 2 mm., but most were much smaller). Although the concentration, always sparse, varies according to the location, there was no evidence of a true hearth anywhere in the excavated area. Archaeological Level 1 contains a rich lithic industry that can be assigned to the Châtelperronian (or Lower Périgordian) tool-making tradition (see section IV below). The lower limit of this level (which coincides with the lower limit of Couche B) is sharp, but it exhibits topographic irregularities of uncertain significance discussed further below (see section V).

Couche C. Thickness = ca. 25 cm. in the small area excavated. Couche C is a clayey sediment of angular to polyhedric structure and a brownish-yellow color. On the faces of the structural elements, one notes the presence of blackish coatings. The lower limit of this level is sharp. Approximately one square meter of Couche C was excavated and was found to be archaeologically sterile.

Couche D. Thickness = greater than 30 cm. (base not attained by excavation). This level, of which less than one square meter was excavated, is an archaeologically sterile, variegated, plastic clay.

During the course of the test excavation, M. LAVILLE removed nineteen sediment samples from two stratigraphically overlapping columns, one in Square A and one in Square B. The samples, eleven from Couche B, five from Couche C, and three from Couche D, cover in continuous fashion the sediments exposed by the 1973 test excavation. One portion of each sample will serve for the sedimentological analysis of M. LAVILLE and another portion will serve for the palynological analysis of Mlle. PAQUEREAU (letter of H. LAVILLE to H.M. BRICKER, 6 November 1973). Because faunal remains are not preserved at Les Tambourets, paleontological analysis is not possible.

The stratigraphy revealed by the 1973 test excavation accords well with the earlier observations of M. MEROC for Couches A, B, and C. However, he apparently never encountered the plastic clay of Couche D.

IV. The Lithic Industry

The complete inventory of the 763 artifacts recovered during the 1973 test excavation was given in a previous communication (letter from M. BRICKER to M. CLOTTES, dated 4 August 1973) and is not repeated here. The classification used in that inventory was completely provisional and has been modified by subsequent research (as reflected in the present report). At the present time (November 1973), I have completed the preliminary typological analysis of the retouched tools and have made certain observations on the rest of the assemblage. My analysis will continue during the coming months, and typological details supplementing those mentioned in this report will be published later in a definitive report.

The typological characteristics of the lithic series from the 1973 test excavation can be seen from the type inventory (Tab. 1) classified according to the standard de Sonneville-Bordes and Perrot type list and from the cumulative graph based on that list (Fig. 3). The series inventoried includes 131 tools, 3 from Couche A and 128 from Couche B. The tools from Couche A include an atypical end-scraper, a steep scraper on a flake, and a break burin. Among the tools from Couche B are five from <u>above</u> Archaeological Level 1 -- a Châtelperron point, a completely backed blade, a marginally retouched blade, a denticulate flake, and a splintered piece. The eight inventoried tools not coming from Archaeological Level 1 are completely representative of the assemblage from that level, and the cumulative graph is not altered in any significant way by their inclusion. Because the total series is so small and because lateral localization of different classes of tools is apparent even in the small area excavated, the inventory data must be regarded as simply an <u>approximation</u> of the true typological characteristics of the Tambourets assemblage.

In the 1973 series, scrapers (IG=16.79) are less numerous than burins (IB=27.48), although the opposite is apparently true in the larger collection of M. MEROC. Well made end-scrapers on blades are present (Fig. 4, no. 753), and identical morphologies occur on flakes (Fig.4, no.483). Almost as frequent, however, are steep scrapers on thick flakes on which the retouch extends around two or more sides of the periphery (Fig.4, no.434 and Fig. 5, no.431). Several pieces on which the retouch removals are longer but more limited can be regarded as atypical carinate scrapers. The importance of these steep scrapers on flakes, including carinate-like forms, was noted by M. MEROC.

The burin series is composed almost exclusively of dihedral burins (IBd=19.08 excluding Types 30-A and 30-B; IBt=1.53 including one flat-faced truncation burin, Type 44), and the predominance of these tools is the most striking characteristic of the cumulative graph. Many of the dihedral burins are rather crude, most are on flakes, and all are either asymmetrical (Fig. 5,

nos.441 and 453) or transverse (Fig.6, no.596). Although truncation burins are very rare, they are well-made and undoubted examples (Fig.5, no.265). Other kinds of burins are neither common nor exceptional, and the burins on Châtelperron-like backed blades reported by MEROC were not encountered.

Although the MEROC collection apparently contains large numbers of Châtelperron points (or knives), only five were found in the 1973 test excavations, and all examples were fragmentary (Fig.6, nos. 458 and 476) except one very small, rather dubious example. Three have bidirectional backing. One piece, not illustrated, is described as an atypical Châtelperron point (Type 47); it is made on a lame à crête, and the modifying retouch along the "backed" edge is very light. Another tool made on a lame à crête partielle and heavily utilized on one edge (Fig.6, no. 171), could be considered a naturally backed Châtelperron knife (but included here as Type 92). MEROC reported the presence of large numbers of naturally backed lames à crête utilized on the edge opposite the natural back and having the general morphology of Châtelperron points. These pieces, which were more numerous in his collection than typically retouched Châtelperron points, are probably similar to Fig.6, no.171. Other backed pieces include completely backed blades (Fig.6, nos. 365 and 496), partially backed blades (Fig.6, no.194), and one shouldered blade. Although some of the backed blades are small, there are no true backed bladelets. Finally, a large flake extensively utilized on one edge can be described as a naturally backed flake knife (Fig. 7, no. 548).

Marginally retouched flakes and blades account for just over 8% of the inventoried series. Most are fragmentary and may be broken portions of other tools (they do not, of course, fit with any of the tools in the series coming from the 1973 test excavation). The retouch is generally fine and semi-abrupt (Fig.4, no.322 and Fig.5, no. 394), but more acute, scaled removals occur on several pieces. MEROC noted the presence of numerous bladelets with fine, semi-abrupt retouch recalling lamelles Dufour. None of the pieces in the test excavation series is made on a bladelet and certainly none can be called a lamelle Dufour.

Truncated pieces and perforators (all becs) are neither numerous nor well made. Splintered pieces, mentioned especially by MEROC, account for almost 5% of the 1973 inventoried series. With one exception, the numerous notched and denticulate pieces (almost 20% of the inventoried series) are unexceptional and the notches are very small. The exception is a flake with very prominent inverse denticulation (Fig.7, no.510). Retouched points (other than those of Châtelperron type) are apparently frequent in the MEROC collection, but only one example was encountered in the test excavation (included in Type 92). Combination tools are rare (Fig.4, no.672).

The series of 35 nuclei (excluding fragmentary examples and rough-outs) has not yet been studied in detail. It is possible to state now, however, that they are almost without exception prismatic blade cores, often with two opposed striking platforms. This observation accords exactly with that made previously by M. MEROC.

The raw materials used by the prehistoric artifacers to manufacture the stone tools have been investigated in a preliminary fashion. The majority of the industry is made on a flint bearing a white or variegated bluish-black-and-white (salt-and-pepper) patination. Such flint can be found today on the surface in several localities in the valley of the Volp River to the south of Les Tambourets (I am indebted to M. Philippe THOMAT for this information). This flint is full of impurities, and because a great many of the tools and waste flakes bear cortex, the nodules available to the prehistoric artificers may well have been small. Another flint variety, much less commonly used, has a warm buff patination and appears to be of much higher quality. I do

not yet know the source of this flint. Several other flint varieties are used very rarely, and I am again unaware as yet of their provenience.

In summary, then, the assemblage of Archaeological Level 1 at Les Tambourets appears, from the small sample obtained by the 1973 test excavation, to be a fully Upper Palaeolithic industry in which the blade technology played an important (but by no means exclusive) role. Tools characteristic of the Mousterian, while not absent, are not common, and they do not determine the general characteristics of the industry. A comparison of the 1973 series with the data presented by M. MEROC suggests that the importance of steep scrapers on flakes would be borne out by further excavations but that the dominance of dihedral burins and the scarcity of Châtelperron points probably result from lateral localization of tools.

Definitive comparison of the Tambourets assemblage with Châtelperronian assemblages from other sites must wait until I can examine a larger series, from further excavation and from the MEROC collections.

V. Relation of Tools to the Living Floor

A major benefit obtained by the excavation of an open-air site rather than a rock-shelter site is the increased possibility of obtaining paleoethnographic information, especially information concerning the nature and use of artificial structures. Although the test excavation involved only eight square meters of what must originally have been a very large site, every attempt was made to collect data in such a way as to facilitate paleoethnographic interpretation. This attempt produced mixed results (based on not yet completed analysis). No unambiguous evidence of an artificial structure was found in the excavated area, but localization of certain tool classes within Archaeological Level 1 provides strong evidence that the excavated area samples several different activity areas on the living floor of one prehistoric occupation. This evidence is presented and discussed below.

Although it was impossible during the excavation to recognize or follow any natural subdivisions within Couche B, investigations of artifact provenience carried out subsequently in the laboratory suggest strongly that only one archaeological level was present in the excavated area. The west-east and depth coordinates of each artifact were used to plot its position onto a series of 21 north-south lines spaced 10 cm. apart. The maximum lateral distortion produced by this procedure is 5 cm., certainly insignificant for macrolithic tools occurring in a level without major topographic irregularities. The overwhelming majority of artifacts in Couche B appeared on these plots as dense linear concentrations occupying the basal 10 cm. (rarely 11 or 12 cm.) of Couche B. Above this basal concentration, designated Archaeological Level 1, scattered artifacts occurred, diminishing rapidly in frequency toward the top of Couche B. Some degree of minor disturbance of Archaeological Level 1 by burrowing animals and possibly ancient root channels is present (see below), and the occurrence of artifacts in Couche B above Archaeological Level 1 could easily be explained as the vertical scatter resulting from such disturbance. Although a brief prehistoric occupation posterior to that represented by Archaeological Level 1 can not be ruled out on the basis of the small area excavated, the small number of artifacts involved and their lack of any demonstrably linear arrangement on the plots make this possibility appear unlikely at the present time. Excavation of a more extensive area should, of course, answer the question.

The base of Archaeological Level 1 slopes gently from north to south; in addition, it is slightly undulating throughout the excavated area (Fig. 2). The topographic irregularity of the living floor is most pronounced in Square B, where an amorphous central area is surrounded by a topographically higher area of irregular hummocks (Fig. 8). The irregularity of the higher surrounding area is greater than that of the central area or the area to the south, including Square A, but the relief is not extreme, rarely exceeding eight centimeters. The complete explanation of the irregularity is not yet clear. According to M. LAVILLE, who examined the phenomenon, cryoturbation is a possibility but is by no means certain. Some of the irregularity, involving small holes and tunnels developed in the top of Couche C but filled with Couche B deposit, almost certainly results from the activities of burrowing animals at some time in the past. All such holes which by their surficial outline could be postmolds were tested by sectioning; all phenomena so examined were demonstrably not postmolds. Finally, the general shape of the central depression in Square B suggests that an ancient root system might be the cause of some of the irregularity. Although there is some relationship between the topography and the distribution of stone tools, the pattern is not very clear, and it is not possible at this time to demonstrate that the irregularities result from prehistoric human activity. Further distributional analysis will be done in the laboratory, but the nature of the topography of the living floor will probably be explained only by further excavation.

The lateral distribution of all artifacts (retouched tools, waste flakes, etc.) in Archaeological Level 1 is shown in Fig. 8. Except for a slightly less dense concentration in the northern half of Square B (and perhaps the central depression), artifacts are distributed very uniformly and very densely throughout the excavated area. When, however, the specific distribution patterns of nuclei and some of the more frequently occurring tool classes are compared with the general distribution, non-random localization is apparent (Fig. 9). The great majority of nuclei occur in Square A, especially along the southern edge. Burins have a similar though somewhat less pronounced patterning. The center of concentration of scrapers is clearly located more to the north, mostly in Square B. Backed tools (including those with natural backs) are not convincingly localized. One observation, of uncertain significance, is the near absence of nuclei and the major tools from the central depression of Square B. In general, however, one can divide the living floor in the eight square meters excavated into two general areas: a) a southern area, lower and gently undulating, where the artifacts are principally burins, nuclei, and waste flakes (and backed tools?), and b) a northern area, with greater topographic relief and a more balanced mixture of different classes of tools and waste flakes. (I am now preparing a computer-aided study of the distribution and other characteristics of the non-retouched material, and the results of this study should usefully supplement the observations made above).

On the basis of the information currently available, it appears quite clear that the test excavation of 1973, although very limited in extent, has effected a partial sampling of an in situ Châtelperronian living floor on which different activities were differentially localized. The density of the artifact scatter, the abundant evidence of tool manufacture on the living floor, and the typological diversity of the retouched tools all suggest that the living floor sampled was that of a multipurpose "base camp" habitation site at which a full range of cultural activities were performed. The

apparently large extent of the whole site has, of course, long led to the same conclusion. The preliminary results of the 1973 test excavation emphasize the importance of Les Tambourets to our understanding of the paleoethnography of the early Upper Palaeolithic. The relationship of these results to the broader picture of the Tambourets occupation (or occupations), including the artificial structures and hearths which one must expect eventually to find, can be discovered only by additional, more extensive excavations, which I would like to be able to conduct in the near future.

VI. Acknowledgements

Many people contributed very generously of their time, advice, and other resources in order to make this project possible. I gratefully acknowledge my indebtedness and gratitude to the following:

- -to M. J.-F. ALAUX, my co-director, for his advice and support;
- -to M. H. LAVILLE, for his invaluable assistance with the geological study;
- -to Professor H. MOVIUS, for suggesting the Tambourets research to me, for his aid in planning its execution, and for permitting me to use much of the valuable excavation equipment of the Harvard Dordogne Expedition;
- -to the TULANE UNIVERSITY SENATE COMMITTEE ON RESEARCH, for their financial support;
- -to Miss A. GARDNER, for her conscientious and very competent assistance on the site;
- -to Professor A. KING and Professor V. BRICKER, who took time from their own researches to help with mine;
- -to the children of the late M. and Mme. L. MEROC, and to their families, for their cordial friendship and for their cooperation with my attempt to continue, in one small way, the work of their father;
- -to my colleagues, MM. G. SIMONNET, R. SIMONNET, and P. THOMAT, for many useful suggestions about the prehistory of the Haute-Garonne;
- -to Mlle. M.-M. PAQUEREAU, for her willingness to undertake the palynological study;
- -to M. L. SENTENAC and to M. and Mme. PORTET, for their help and many kindnesses during the excavations;
- -to Mr. J. CASALE, for his help in the laboratory after the excavations; and
- -to M. Y. COPPENS, Professor M. EDMONSON, Mme. VADON, and Professor S. FISCHER, without whose assistance at critical moments this research would not have taken place.

Among my professional colleagues, I am most deeply indebted to M. J. CLOTTES for his assistance and encouragement through several years of preparation. His keen interest in the research, his belief in its value, and his personal friendship have been greatly appreciated.

Finally, I offer my warmest thanks to M.Y. DUBOIS, to Mme. DUBOIS, and to their family. I am grateful for the authorization to work at Les Tambourets and for the many other kindnesses they extended to all of us throughout our stay in the Haute-Garonne. Along with my thanks, I express the hope that the DUBOIS family may find some satisfaction in sharing my attempts to learn more about their early predecessors at Les Tambourets.

New Orleans, Louisiana
27 November 1973

CAPTIONS FOR THE TABLE AND THE FIGURES

Tab. 1--Typological inventory of the lithic series from the 1973 test excavation at Les Tambourets.

Fig. 1--General location of Les Tambourets and specific location of the 1973 test excavation (Squares A and B). Small open squares represent iron stakes serving as orientation points. The top of the westernmost stake ("0") is the site zero point, having an elevation of ca.+270.43 m. The northern edge of route D.62 as shown on the map represents the line along which Archaeological Level 1 crops out near the base of the road cut.

Fig. 2--Provisional stratigraphy of the 1973 test excavation at Les Tambourets.

Fig. 3--Cumulative graph of the lithic industry recovered by the 1973 test excavation at Les Tambourets; N = 131.

Fig. 4--Les Tambourets: Couche B. 753 and 483: end-scrapers; 672: end-scraper + truncated blade combination tool; 434: steep scraper on flake; 322: marginally retouched blade (scale: 1/1).

Fig. 5--Les Tambourets: Couche B. 431: steep scraper on flake; 394: marginally retouched blade; 441 and 453: dihedral burins; 265: truncation burin (scale: 1/1).

Fig. 6--Les Tambourets: Couche B. 596: dihedral burin; 496 and 365: completely backed blades; 171: naturally backed knife; 194: partially backed blade; 458 and 746: Châtelperron points (scale: 1/1).

Fig. 7--Les Tambourets: Couche B. 548: naturally backed knife; 510: denticulate flake (scale: 1/1).

Fig. 8--Lateral distribution of all artifacts in Archaeological Level 1 at Les Tambourets. In the stippled portion of Square B, the base of the level is topographically higher and more irregular than in the rest of the excavated area.

Fig. 9--Lateral distribution of all nuclei (NU), scrapers (GR), burins (BU), and backed tools (OD) in Archaeological Level 1 at Les Tambourets.

Table 1.--Typological inventory of the lithic series from the 1973 test excavation at Les Tambourets

Type	Total	%
1. End-scraper	4	3.05
2. Atypical end-scraper	5	3.82
3. Double end-scraper	1	.76
4. Ogival end-scraper	1	.76
5. End-scraper on retouched blade or flake	1	.76
8. Discoidal scraper	7	5.34
12. Atypical carinate scraper	2	1.53
15. Nucleiform scraper	1	.76
16. Rabot or Plane	1	.76
17. End-scraper + Burin	1	.76
18. End-scraper + Truncated piece	1	.76
22. Perforator + Burin	1	.76
24. Bec or Atypical perforator	4	3.05
28. Asymmetrical dihedral burin	10	7.63
29. Transverse or transverse/oblique dihedral burin	15	11.45
30-A. Burin on broken surface	4	3.05
30-B. Burin on unretouched edge or end of flake or blade	3	2.29
35. Burin on straight, oblique truncation	1	.76
41. Mixed multiple burin, Types 27-30 + Types 34-39	1	.76
43. Nucleiform burin	1	.76
44. Flat-faced burin	1	.76
46. Châtelperron point	4	3.05
47. Atypical Châtelperron point	1	.76
57. Shouldered piece	1	.76
58. Completely backed blade	5	3.82
59. Partially backed blade	3	2.29
61. Piece with straight, oblique truncation	2	1.53
63. Piece with convex truncation	3	2.29
65. Piece with continuous retouch on one edge	7	5.34
66. Piece with continuous retouch on both edges	4	3.05
74. Notched piece	17	12.98
75. Denticulate piece	6	4.58
76. Splintered piece	6	4.58
88. Denticulate bladelet	1	.76
89. Notched bladelet	1	.76
92. Other tools, not included in Types 1-91	4	3.05
	131	99.93

Scraper index IG	16.79
Aurignacian scraper index IGa	1.53
Perforator index IP	3.05
Burin index IB	27.48
Dihedral burin index IBd	24.43
Truncation burin index IBt	.76

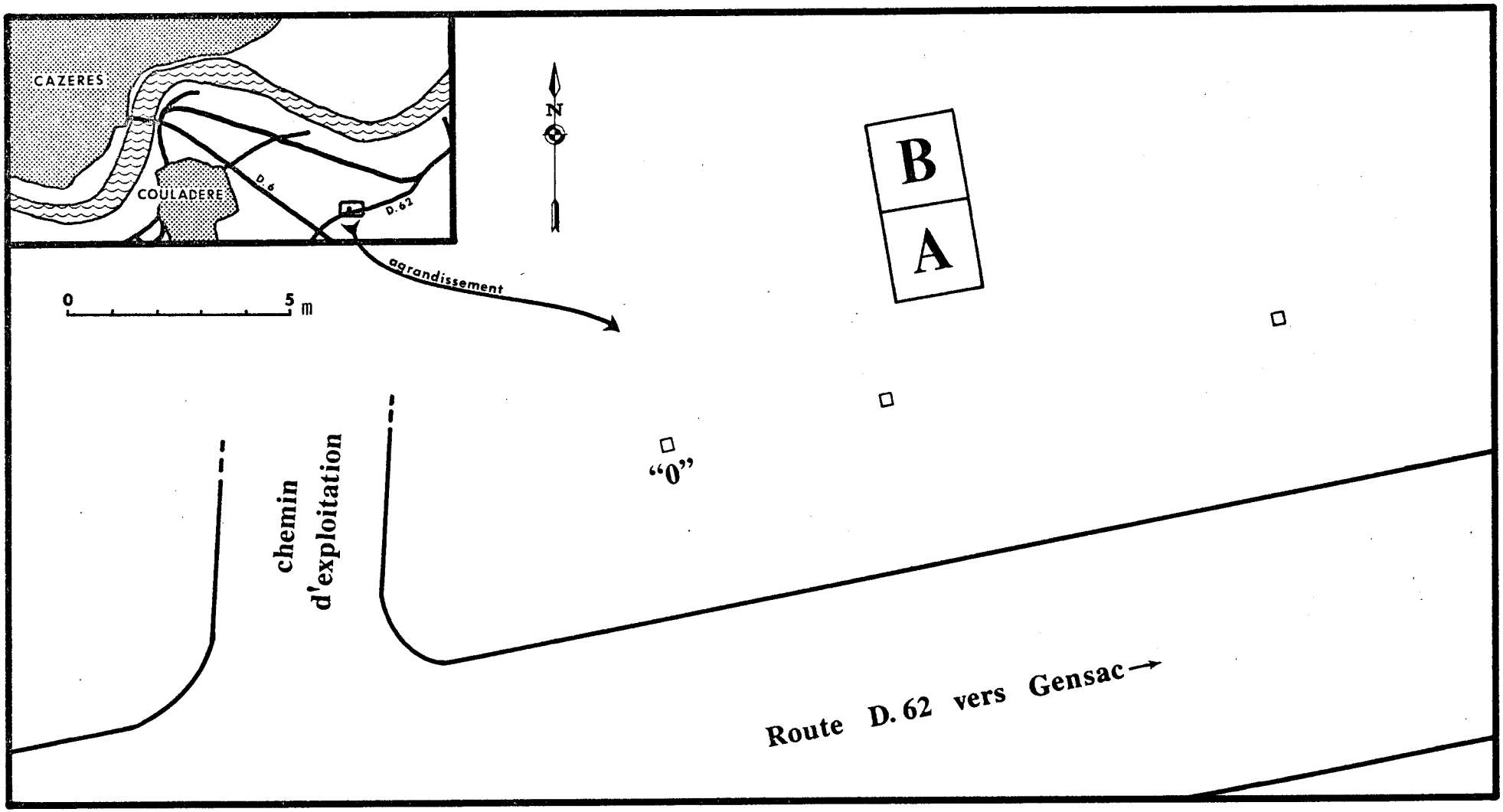
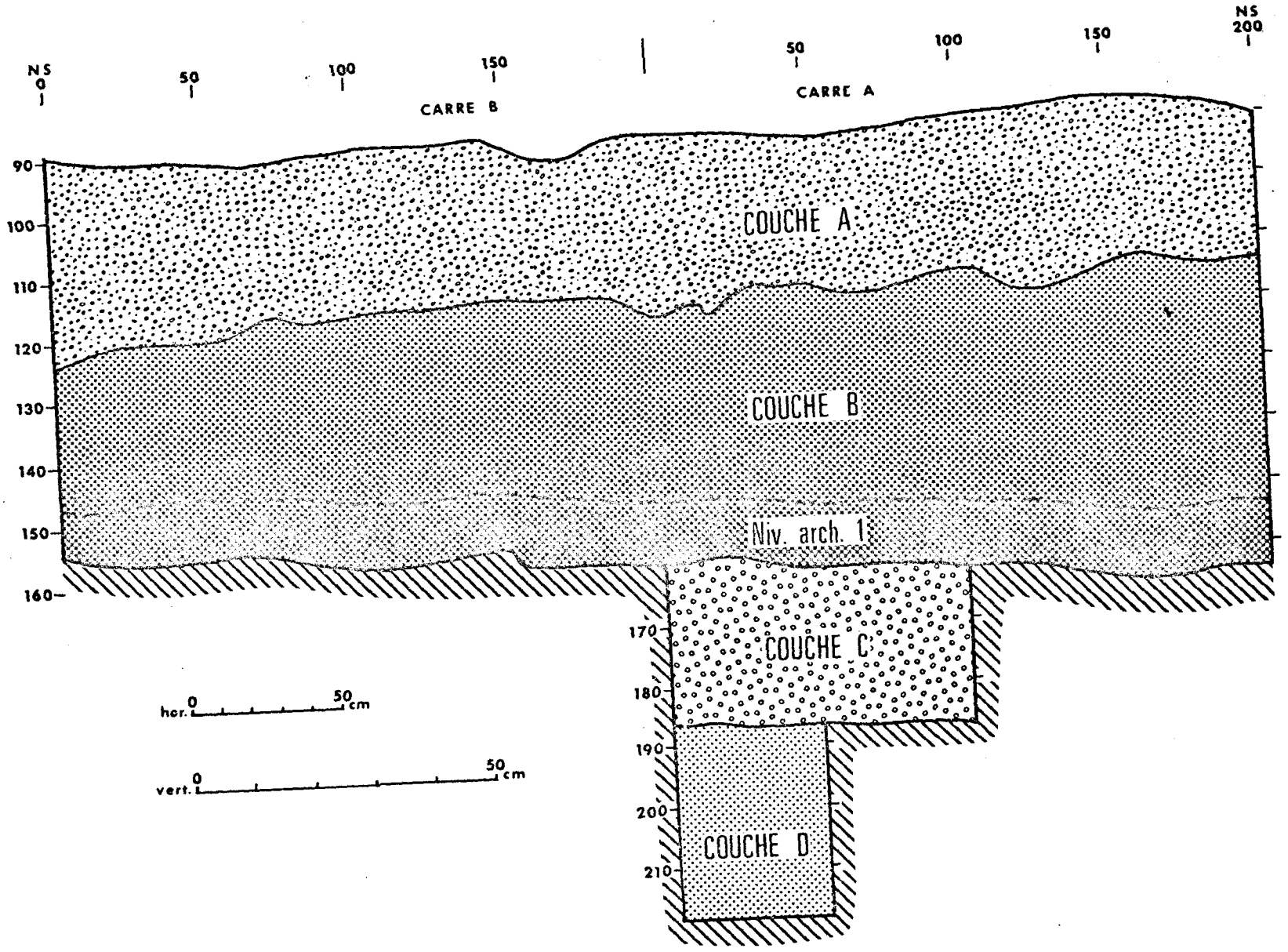


Fig. 1

H M BRICKER



H M BRICKER

Fig. 2

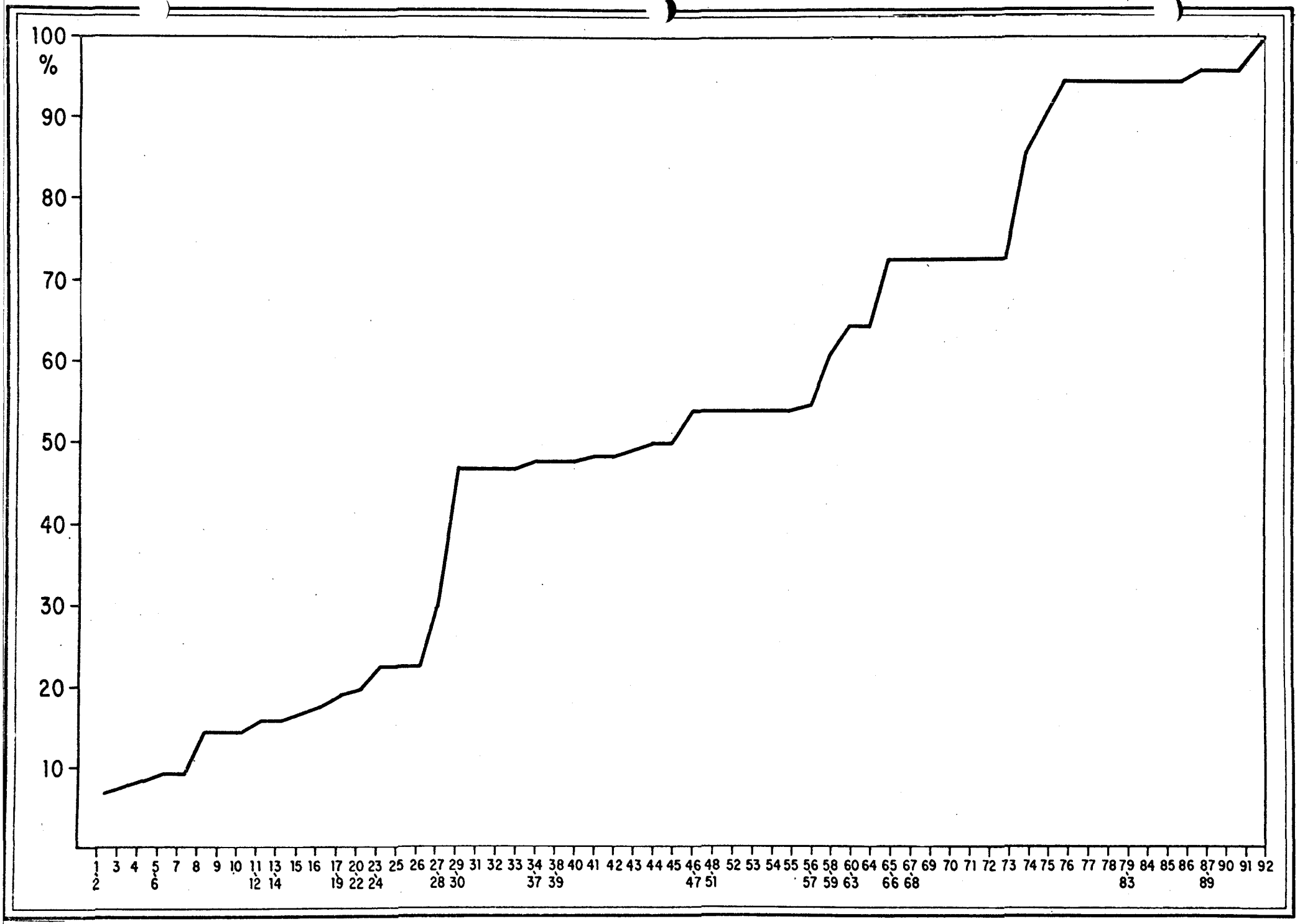

100
%
90
80
70
60
50
40
30
20
10
1 3 4 5 7 8 9 10 11 13 15 16 17 20 23 25 26 27 29 31 32 33 34 38 40 41 42 43 44 45 46 48 52 53 54 55 56 58 60 64 65 67 69 70 71 72 73 74 75 76 77 78 79 84 85 86 87 90 91 92
2 6 12 14 19 22 24 28 30 37 39 47 51 57 59 63 66 68 83 89

Fig. 3

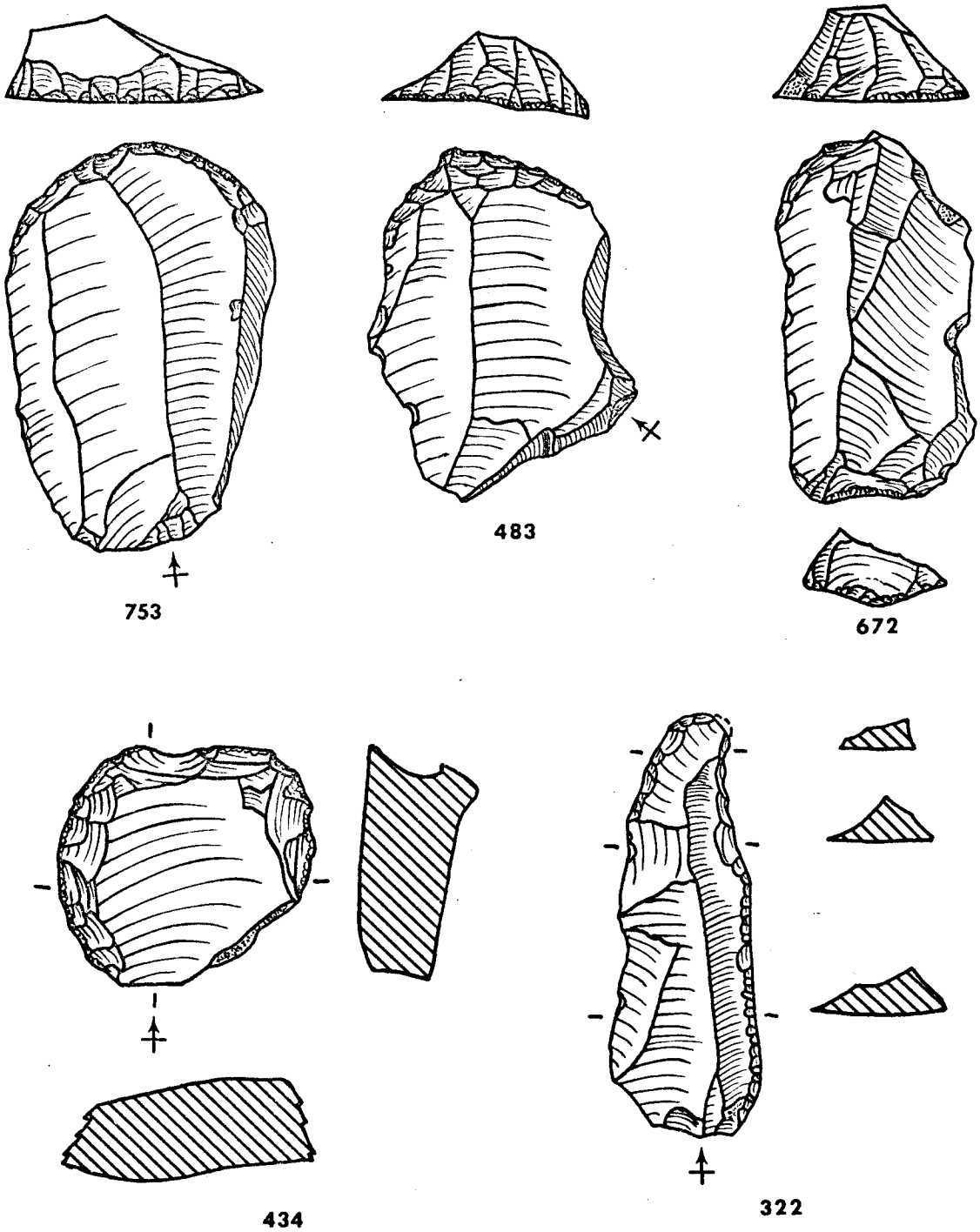


Fig. 4

H M BRICKER

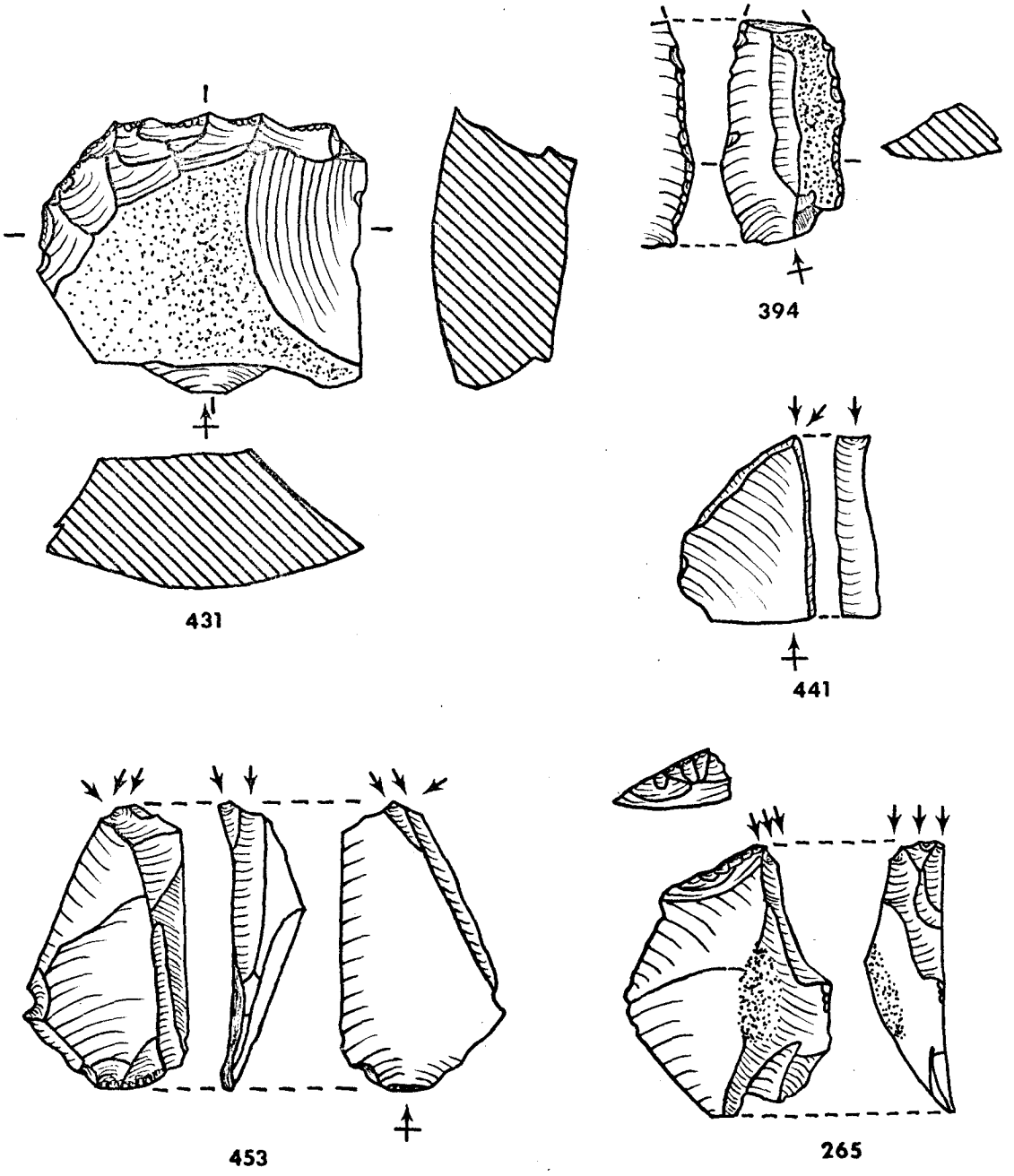


Fig. 5

H M BRICKER

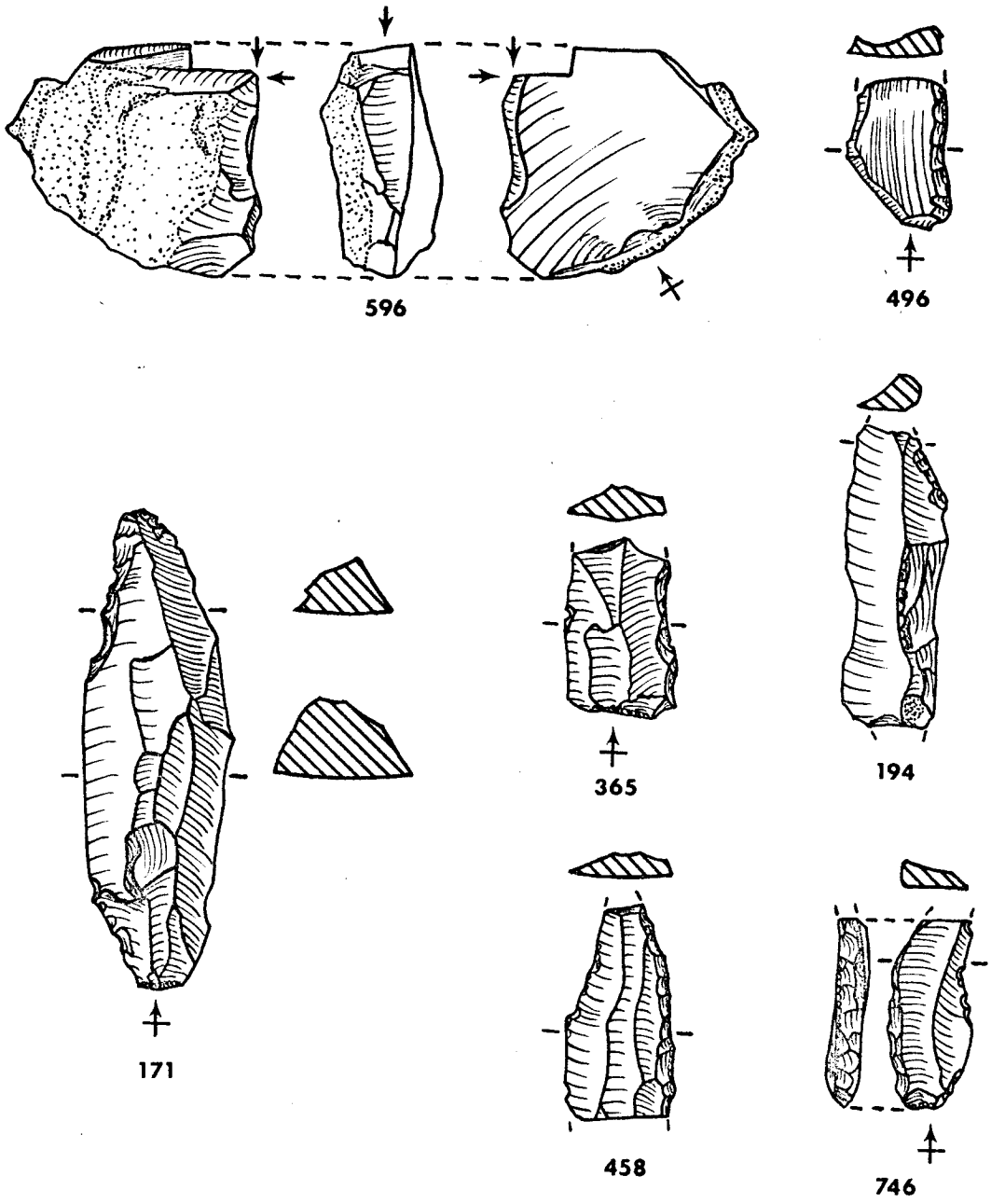
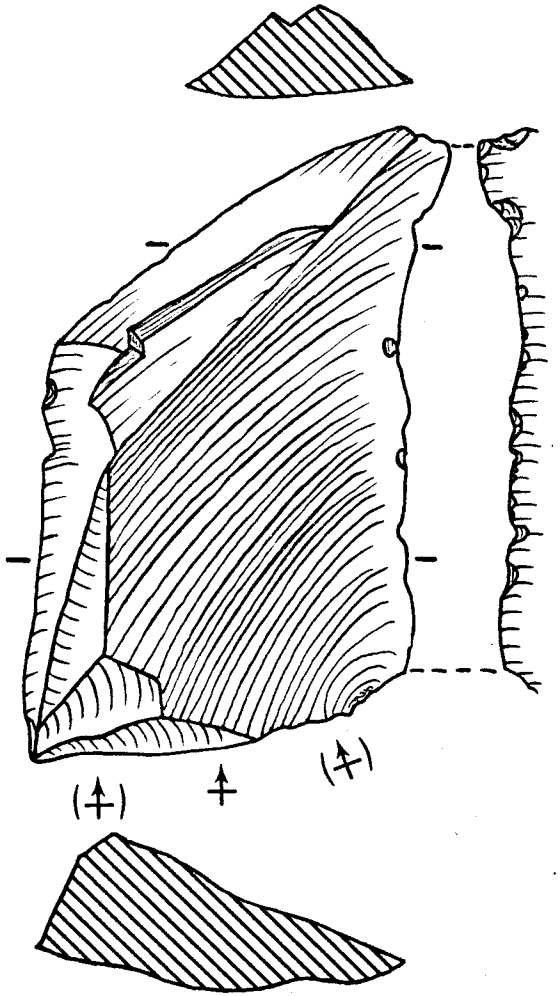
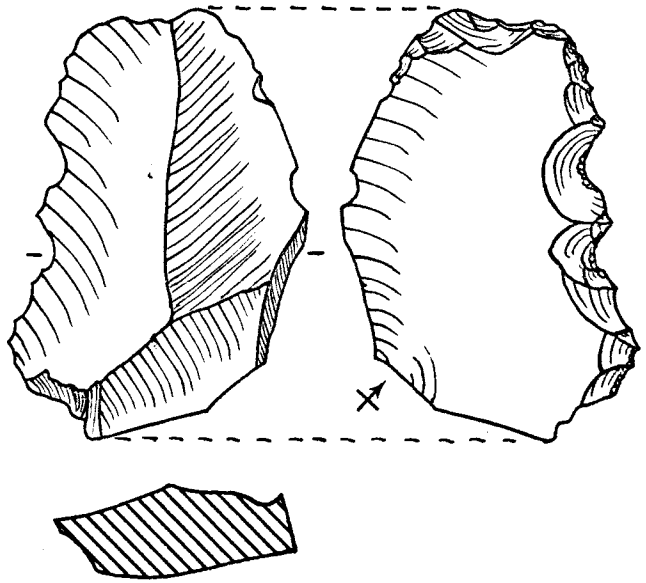


Fig. 6

H M BRICKER



548



510

Fig. 7

H M BRICKER

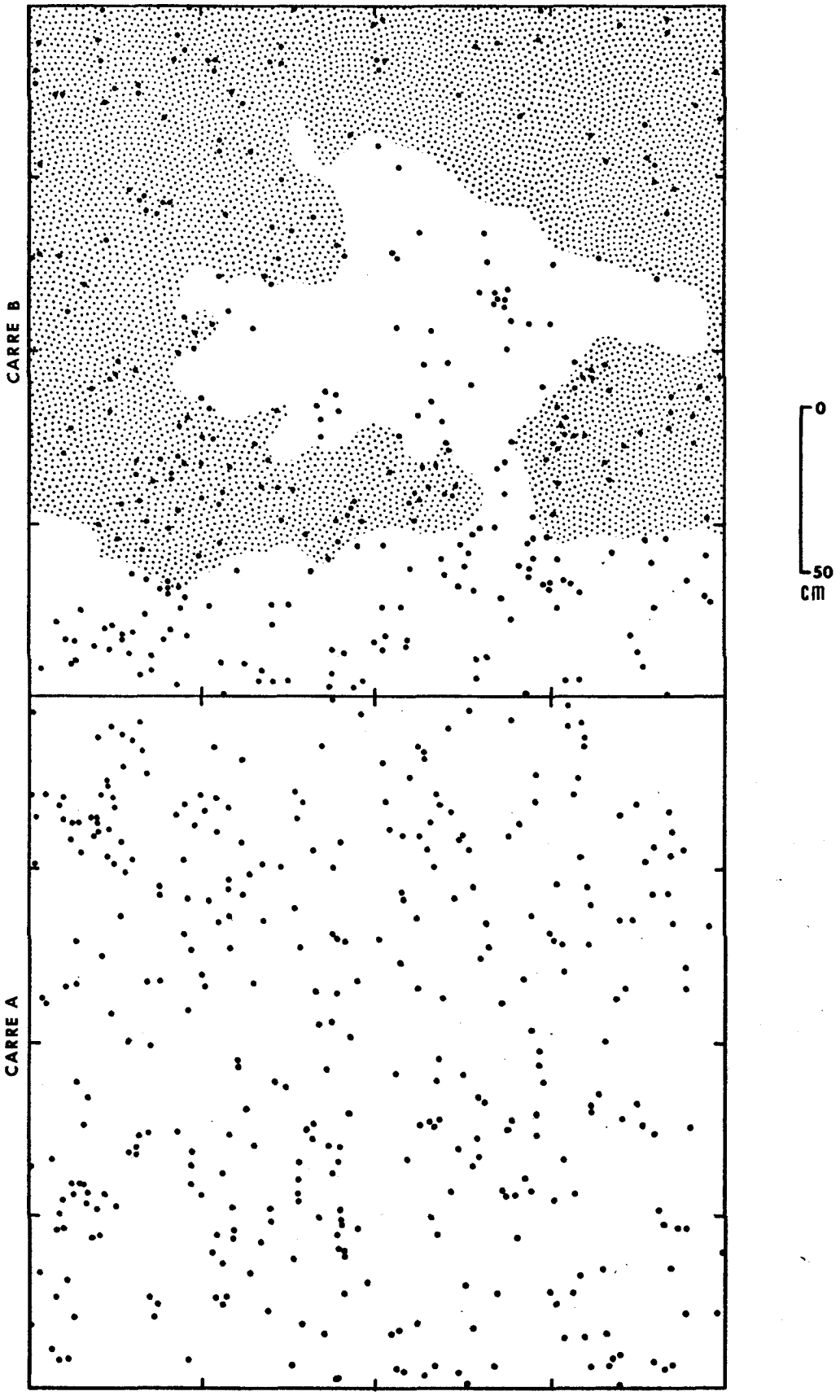


Fig. 8

H M BRICKER

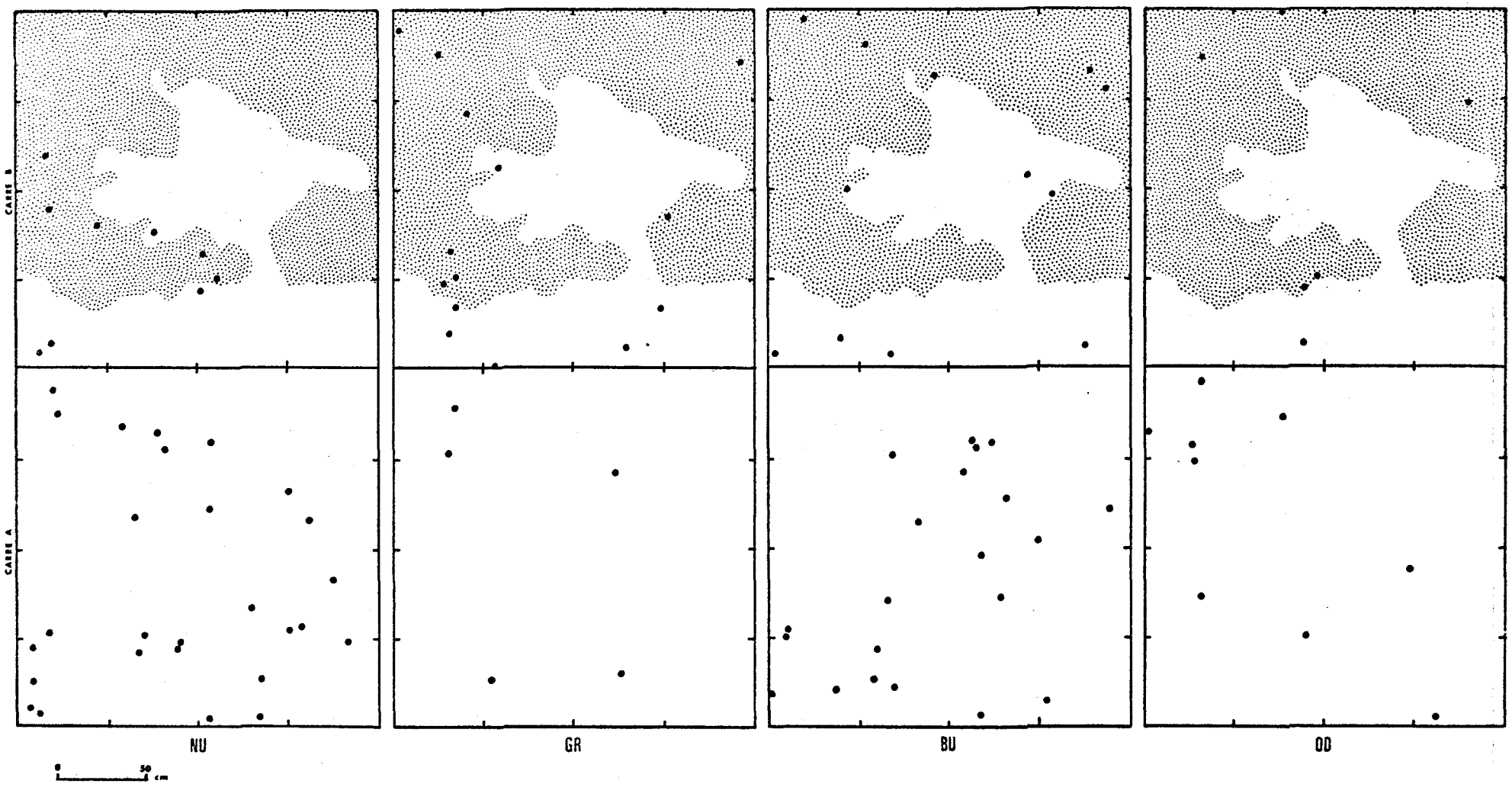


Fig. 9

H M BRICKER