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Palaeolithic Lamps and Their Specialization: A Hypothesis[1]

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The existence of lamps in the Palaeolithic was finally acknowledged only in 1902, when the art on cave walls was officially recognized. People were obliged to concede that prehistoric man must have had some portable means of lighting at his disposal to be able to produce paintings and engravings on cave walls often several hundred metres from the light of day. From comparisons with the lamps used by Eskimo populations and the ancient "calels" of French country districts, stone lamps burning animal fat were postulated. As successive finds were made, inventories were drawn up and new items added at each publication (Saint-Périer 1926, Viré 1934, Bastin and Chassaing 1940, Glory 1961, Delluc and Delluc 1979). Any more or less hollow object with some semblance of a receptacle was rather indiscriminately identified as a "lamp."

Thus the necessity arose to make a study of this utensil, for which no true definition existed and whose technical, morphological, and functional characteristics and spatial and chronological distribution were very little known (de Beaune[-Romera] 1983, 1987). The main aims were to define the Palaeolithic lamp and establish a typology and to find out how it worked. These problems were closely linked, for the existence of several types of lamp might be due to the constraints of the material used, to different stages of production, to the personal skill of the craftsman, and/or to different requirements. If these objects had the same purpose and the same function, all the variations observed might correspond to what Leroi-Gourhan (1965) has called "functional approximations" tending towards an "ideal function" while remaining "subject to the contradictory demands of mechanical satisfaction and the stamp of the internal environment of the group."

Several approaches to these problems were employed. Archaeology proper made it possible to draw up an inventory of all the objects that might have been used as lamps and to compare their technical, morphological, and functional characteristics and their spatial and chronological distributions (de Beaune 1987, Roussot and de Beaune-Romera 1982). Through physicochemical analytical techniques such as mass spectrometry and gas chromatography it was possible to identify the particular fats and wicks used. In experimental studies we reconstructed various processes in the production and use of the lamps (how they were lit and maintained). Furthermore, the light provided by these modern replicas was measured in the metrology laboratory of Kodak-Pathé, France (de Beaune-Romera 1984*a*). Lastly, a comparative study provided a body of information on the way the fat-burning lamps used by Eskimos work.

DEFINITION AND DISTRIBUTION

A lamp must have an active zone consisting of the hearth on which the fuel is burned and a wick and a passive zone providing support and a means of holding it. The active zone may be a more or less elaborate bowl, a simple hollow, or just a flat surface. The passive zone is variable in volume; this affects the weight of the object and consequently the ease with which it can be moved but does not directly influence the way it works. There may be a handle to make it easier to hold.

Raw material, size, and shape are not sufficiently definitive to allow us to conclude that the purpose of the lamp was to give light. Only traces of use or residues of burning allow such an interpretation. The traces of burn-

1. 0011-3204/87/2804-0008$1.00. Translated by Mary Turton.

ing must be plentiful and situated in and around the active zone, the rest of the object being free of them. We do not agree with Allain (1965) that a bowl shape constitutes a determining criterion for use as a lamp, since the existence of perfectly flat slabs serving that purpose has been established (fig. 1).

Specimens recorded as possibly having been used as lamps are numerous (547), but close study of these objects and especially of traces of their use shows that the number of indisputable lamps is much smaller (85). Between the definite lamps and the specimens that quite plainly had some other function (receptacles for ochre, mortars, etc.), we find a certain number of objects whose use it is difficult to determine with certainty. After classifying all the potential lamps hierarchically, from the most certain to the most dubious, we have defined a basic statistical population consisting of 302 items, separated into two categories: (1) certain, probable, and possible, numbering 169, and (2) doubtful, either because they contain no significant traces of such use or because they were lost before their function could be determined, of which there are 133.

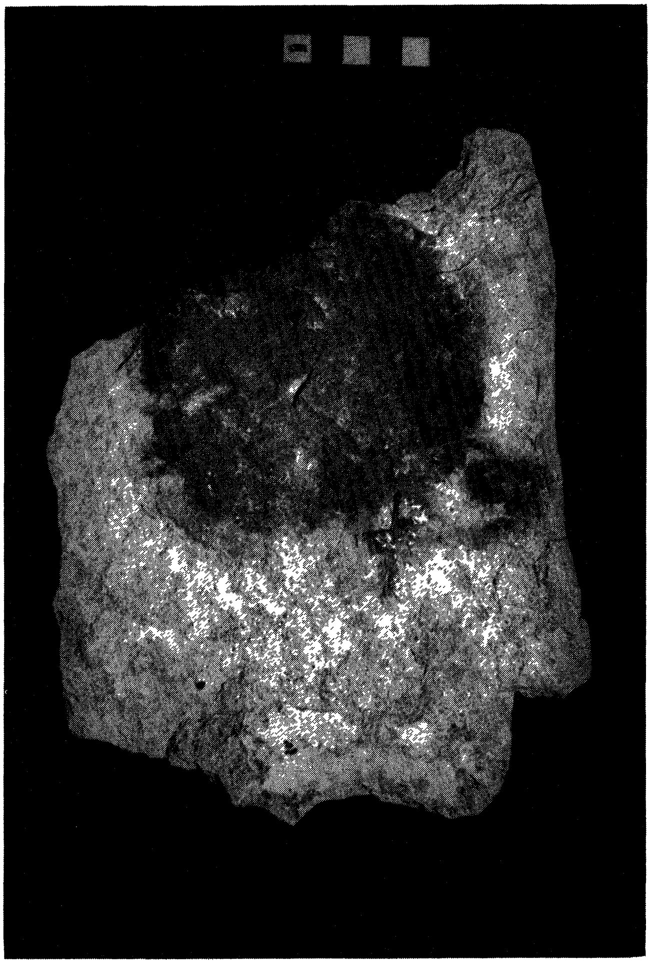

FIG. 1. *Limestone slab from the Blanchard cave at Saint-Marcel (Indre), discovered by J. Allain. 222.5 × 195.5 mm. Magdalenian IV (photo S. A. de Beaune).*

Traces of use have been observed in 198 lamps. On the basis of their nature and position it has been possible to define two functionally different types: "open-circuit" lamps, including slabs with a concave, inclined, or horizontal surface and bowl lamps with open cavities, and "closed-circuit" lamps, in which the cavities are closed. Gas chromatographic and mass spectrometer analysis of samples taken from some of the lamps has led to the identification of fatty acids of animal origin (composition similar to that of Suidae or Bovidae). Less conclusive results were obtained in the case of various wick residues (wood laboratory, Zürich), but it was shown that conifer and non-woody wicks were used (Delluc 1979, de Beaune 1987).

The nature, abundance, and position of traces of use on the lamps depend essentially on how the lamps worked and how long they were in use; they have no connection with the dating of the object. We may suppose, however, that the most ancient specimens carry fewer traces because they are less well preserved; moreover, lamps whose burn marks provide indisputable evidence for their use as lights are rare before the Magdalenian, perhaps because of the problems of long-term preservation of fleeting traces of this kind. Indeed, most Aurignacian lamps belong to the doubtful category, and the first undoubted lamps are recorded only in the late Perigordian (at Laugerie-Haute, Dordogne). Magdalenian lamps (71.5% of the total) are markedly more plentiful in the middle and upper phases (table 1, fig. 2).

The 285 lamps of which we know the precise origin come from 105 different sites, mainly in south-western France; the Aquitaine Basin (Dordogne, Lot, and Gironde) has yielded 60% of the lamps and the Pyrenean region 15%. Other areas, such as the Massif Central and the Loire Basin, have yielded only 6–9% of the lamps. Lastly, areas such as the Paris Basin and the Mediterranean region offer only a few isolated examples (1–3%). Outside France, known lamps are exceedingly rare (in Spain, Germany, Czechoslovakia), suggesting that this type of utensil has a limited geographic distribution (table 2, fig. 3).

Sites in which it is possible to move around with no source of light other than the sun or, if need be, the moon (open-air sites, rock-shelters, shallow caves) have yielded 71.5% of the lamps. Contrary to what one might

TABLE 1
Chronological Distribution of the 260 Dated Lamps

Period	Number of Lamps	%
Lower or Middle Palaeolithic	1	0.5
Aurignaco-Perigordian	34	13.0
Solutrean	9	3.5
Solutrean or Magdalenian	16	6.0
Magdalenian	186	71.5
Upper Magdalenian or Azilian	11	4.5
Azilian or Aziloid	3	1.0

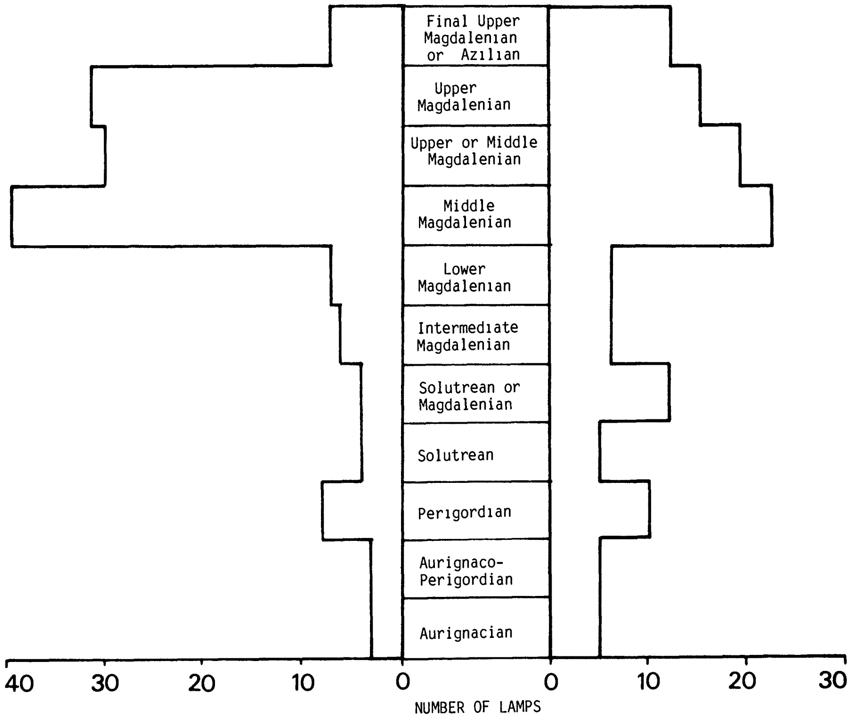

FIG. 2. *Chronological distribution of Palaeolithic lamps.* Left, *certain, probable, or possible;* right, *doubtful.*

TABLE 2
Distribution by Department of Lamps and Sites with Lamps

Department	Number of Sites	Number of Lamps
Aude	1	1
Ariège	7	20
Charente	5	9
Corrèze	4	6
Dordogne	45	120
Gard	2	2
Haute-Garonne	5	5
Gironde	11	48
Hérault	1	1
Indre	2	22
Landes	1	2
Loire	2	9
Haute-Loire	1	1
Loir-et-Cher	1	1
Lot	3	4
Pas-de-Calais	1	1
Puy-de-Dôme	1	2
Pyrénées-Atlantiques	2	14
Hautes-Pyrénées	2	2
Seine-et-Marne	2	3
Val-d'Oise	1	1
Vaucluse	1	1
Vienne	1	5
Yonne	3	5
Total	105	285

expect, dark sites (deep caves, whether decorated or not) have yielded only 19.5% of the lamps. The average density of lamps by type of site is the same (2–3 lamps), moreover, and the sites with a considerable number of lamps are mostly rock-shelters (table 3).

The precise topographical location of a lamp on the site is rarely known, but occasionally it provides information about the role these luminaries may have played. Such information is particularly plentiful in the case of the deep, dark caves. It seems that the lamps were often abandoned at spots where people had to pass, such as the entrance of the cave, where galleries intersect, along a wall, etc. We may suppose that these lamps were placed at "strategic" points so that they could be easily found and reused or could serve as "staging hearths." This as-

TABLE 3
Distribution of Lamps by Type of Site

	Sites		Lamps	
Site Type	Number	%	Number	%
Open-air	9	9.5	21	7.5
Rock-shelter	41	43.5	139	51.0
Light cave	17	18.5	33	12.0
Dark cave	27	28.5	80	19.5

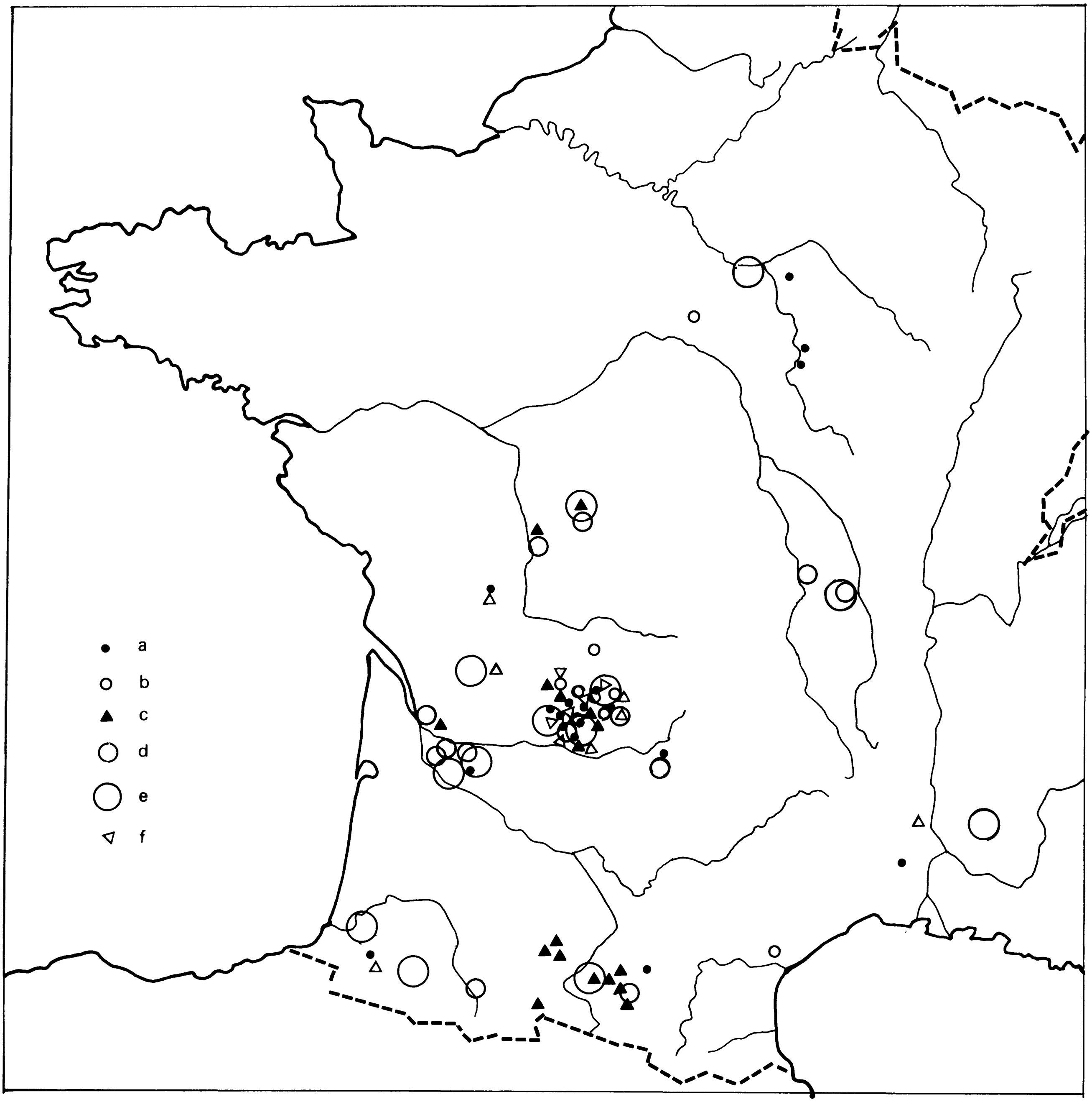

FIG. 3. *French sites that have yielded lamps:* (a) *Aurignacian and Perigordian;* (b) *Lower Magdalenian;* (c) *Middle Magdalenian;* (d) *Middle or Upper Magdalenian;* (e) *Final Upper Magdalenian or Azilian;* (f) *Solutrean or Magdalenian.*

sumption is partially confirmed by their very positions, sometimes in pairs, suggesting that they had been "put away." In particular, this is the case with the many little slabs at Lascaux (Delluc and Delluc 1979).

Whatever the type of site, the lamps are often found in or close to structures of combustion, which suggests that the lamps were preheated in a hearth before use or, more simply, that they were later abandoned and reused as hearth stones. A large number of lamps, too, have been found overturned; this may be pure chance or, in contrast, may reflect a deliberate extinguishing of the lamp by turning it over. The cases of association with a work of art, a sculpture, or a "cult" deposit are too exceptional to allow any cultural interpretation of the lamps.

TYPOLOGICAL AND FUNCTIONAL CLASSIFICATION

Comparative study of the 302 lamps has enabled us to determine the principal constants and variables in raw materials, shapes, sizes, etc., and to propose the hypothesis that there are three main types:

"Open-circuit" lamps. These are simple, flat or slightly concave little slabs (fig. 1) or natural bowls with cavities opening to the side. The latter are not to be confused with closed-cavity lamps that have been damaged in such a way as to produce an opening by accident. We are concerned here with intact bowls that, when placed on a flat base, have an opening through which the melted fat can flow. These lamps are represented in every period except the Solutrean. The little slabs tend to come from dark caves and the open-cavity bowls from rock-shelters and dark caves.[2] Experiments have shown that this type of lamp has the advantage of needing no preparation, since any slab can serve the purpose. However, it has the disadvantage of entailing a loss of fuel, which tends to run away as fast as it melts. The slabs with concave surfaces are easy to handle while in use, since the off-centre hearth allows the fat to drain down to the lower end, while the opposite, "passive" end can be used to hold it. Most of the Eskimos, even those possessing big, very elaborate lamps, occasionally used simple slabs on which they would arrange a piece of fat and a tuft of lichen when they had no other utensil to hand (Hough 1898). It may be that, like the Eskimos, Palaeolithic man used these slabs as makeshift luminaries.

"Closed-circuit" bowl lamps. These are simple bowls ranging from crude to elaborate; the shape may be irregular, polygonal, oblong, oval, or circular, and the basin is most often (in 80% of cases) circular or oval. They may be entirely natural, have a natural but slightly retouched cavity, or be entirely man-made (table 4). The outline, too, may be natural, retouched, or sculpted. This is the commonest type and is found in all periods and in all regions, whatever the type of site. The usual lamp of this type is of limestone, oval or circular, with a surface area of 70–100 cm^2. The cavity is slightly retouched by chipping or entirely man-made. It has sloping sides and is closed when lying on a base in the horizontal plane; its surface area is 0–20 cm^2, its depth only 15–20 mm, and its volume 0–10 cm^3.

This common type of lamp may be compared to the crude little lamps used by certain Eskimo peoples that have access to wood and so have hearths (e.g., Caribou, Netsilik, Aleut). They are characteristic of populations that lack access to raw materials, such as steatite, that are good conductors of heat or to good fuels such as the fat of marine animals. In contrast, Eskimo populations farther north that have no hearths (because of the lack of wood) have very large lamps, as much as 1 m in length, that fulfil the same diverse functions as hearths (cooking food, heating, drying clothes, etc.) (Hough 1898). Thus there is a direct relationship between the degree of elaboration of the lamps and the presence or absence of hearths in the habitation.

"Closed-circuit" lamps with carved handles. A very few lamps (30) are fashioned and smoothed entirely by abrasion (fig. 4); each has a carved handle, and 11 of them are decorated. Half of these lamps are of sandstone, which confirms the relationship noted elsewhere (de Beaune 1987) between sandstone, "polishing," and decoration. These lamps are particularly remarkable for their shape and fine finish. They appear in the Solutrean(?) or the Lower Magdalenian but are particularly well represented in the Middle and Upper Magdalenian. Most of them come from the Dordogne, but they exist in other regions, from the Charente to the Pyrenees. Among the most famous are those from Lascaux (Glory 1961, Delluc and Delluc 1979), La Mouthe (Roussot 1969–70), Solvieux (de Beaune, Roussot, and Sackett 1986), the valley of La Couze (Roussot 1971), Laugerie-Haute and -Basse (Roussot 1974), and La Faurélie (de Beaune-Romera 1984*b*). These handled lamps are more frequent in the rock-shelters but are occasionally found in the open air or in caves. Their rarity and limited distribution in time and space suggest that they may have had a "ceremonial" use, as has been suggested, for example, for the one from the Puits de Lascaux.

They operate on the "closed-circuit" principle like the bowl lamps mentioned above. The hypothesis that aromatic twigs were used in such lamps cannot be confirmed in the present state of our knowledge, since there are too few chemical analyses; while from their quality these lamps appear not to have had an everyday use, they cannot, nevertheless, be considered "fumigation burners" or "perfume burners" as Glory (1961) suggests.

In examining the spatial and chronological distributions of these different types of lamp, we had to reject fragments and items that had been published too briefly and then lost, as they could not be attributed to one or other of these types (90 examples). We are left with 212 lamps whose distribution can be studied chronologically (table 5), geographically (table 6), and by type of site (table 7). The closed-cavity lamps are by far the most numerous, but it must be clearly understood that the number of slab lamps we have is certainly smaller than the number actually used.[3]

TABLE 4
Cavity Shape and Mode of Fashioning

	Man-made		Natural	
Cavity Shape	Number of Lamps	%	Number of Lamps	%
Oval/circular	135	58.5	48	21.0
Polygonal	11	4.5	2	1.0
Irregular	17	7.5	17	7.5
Total	163	70.5	67	29.5

2. The abundance of flat or concave slabs in the caves can be explained by the fact that they are often fragments of calcite concretion (floor and ends of stalagmites) picked up in the cave itself and used as they are, without any shaping. Similarly, the open-cavity bowl lamps are often made from the ends of stalagmites or stalactites.

3. Large numbers of more or less concave limestone flakes with traces of charcoal have been found at Lascaux (Magdalenian II). Unfortunately, most of them have been lost. The Dellucs (1979)

FIG. 4. *Sandstone "brûloir" from Lascaux, discovered by A. Glory in 1960 in the Salle du Puits at the foot of the painting of a man and a bison. 224 × 106 mm. Magdalenian II (photo R. Delvert).*

TABLE 5
Chronological Distribution of Different Lamp Types

	"Open-Circuit"		"Closed-Circuit"	
Period	Slab	Bowl	Bowl	Handled
Final Upper Magdalenian or Azilian	2	2	7	1
Upper Magdalenian	–	11	21	5
Upper or Middle Magdalenian	1	2	18	5
Middle Magdalenian	6	12	24	5
Lower Magdalenian	–	1	5	3
Indeterminate Magdalenian	1	–	5	3
Solutrean or Magdalenian	–	–	11	1
Solutrean	–	–	6	–
Perigordian	2	2	7	–
Aurignaco-Perigordian	1	1	1	3(?)
Aurignacian	–	2	3	–
Indeterminate Upper Palaeolithic	–	7	20	4
Lower or Middle Palaeolithic	–	–	1(?)	–
Total	13	40	129	30

OPERATION

To be effective, a fat-burning lamp must be easy to handle, give light over some metres (especially for moving about in caves), and be reliable. Two other light sources were known in the Palaeolithic: hearths and torches.

In addition to the many domestic functions of fire at the centre of the habitation, the hearth may have played an important part as a luminary. It is, however, a delicate problem to identify hearths used exclusively for light, and even if such hearths existed, notably in deep caves, they could not have completely replaced lamps and/or torches because they were not mobile.

Functionally, torches are equivalent to lamps, since both are easy to handle. Traces of them are rare in caves and often pose problems of dating and identification; it is sometimes a tricky matter to distinguish between "graffiti," signs, and torch rubbings. The absence or scarcity of lamps in vast galleries such as Niaux, Rouffignac, or Les Trois-Frères (what have long been thought to be lamps in the last of these caves are in fact just part of the flooring) confirms the probable existence of other light

estimated the number as about 130. Only 34 of these "slab lanterns" have been preserved. They have not been treated statistically for two reasons: first, their exact number is unknown and their function as luminaries has not been demonstrated in every case; secondly, it seems likely that these slabs existed elsewhere but were overlooked in earlier excavations. If the Lascaux slabs were included in the statistics, they would modify the figures obtained considerably, shifting the peak to the Lower Magdalenian and increasing the number of lamps originating in the Dordogne.

TABLE 6
Geographical Distribution of Different Lamp Types

Region	"Open-Circuit"		"Closed-Circuit"	
	Slab	Bowl	Bowl	Handled
Paris Basin	–	2	1	–
Loire Basin	1	9	5	1
Charente	–	–	3	4
Massif Central	–	–	4	3
Aquitaine Basin (Dordogne and Lot)	–	20	72	16
Aquitaine Basin (Gironde and Landes)	5	2	20	4
Pyrenean region	7	7	22	2
Provence	–	–	2	–
Total	13	40	129	30

sources, especially because, to be reliable, lamps must be accompanied by another source of fire, whether hearth, torch, or another lamp, so that they can be rapidly relit.

For more than a century now, many scholars have put forward hypotheses as to the use of lamps; rare indeed are those who have sought to check these hypotheses by reconstruction (Peyrony 1918; Saint-Périer 1949; Delluc and Delluc 1979; Newcomer 1981; Roussot, quoted in de Beaune 1987). In order to determine the influence of different morphological and functional characteristics on the efficiency of the lamp, we too have performed various experiments. The processes involved in reconstructing working lamps have enabled us to analyse the extent of the influence of these different factors; the findings can be summed up as follows:

Raw materials. Any rocky base is efficient. However, limestone has the advantage that it often naturally occurs in a shape that requires very little retouching. Sandstone is a much better conductor of heat than limestone, and a handle is desirable to avoid burning one's fingers. Limestone is the raw material most used in the Palaeolithic, and we find a great variety of stages of production; the rarer sandstone is often more finely fashioned, and sandstone lamps frequently have handles.

TABLE 7
Distribution by Site Type of Different Lamp Types

Site Type	"Open-Circuit"		"Closed-Circuit"	
	Slab	Bowl	Bowl	Handled
Open-air sites	–	3	9	5
Rock-shelters	1	14	65	14
Light caves	4	4	12	2
Dark caves	8	13	33	7
Type unknown	–	6	10	2
Total	13	40	129	30

External shape, size, and fashioning. The shape, size, and fashioning of a lamp have little influence on its functioning, but they must represent a compromise between too great volume and insufficient distance between active and passive zones. Calculation of the indices of useful surface and volume in Palaeolithic lamps has shown the balance between total surface and active surface and between total volume and volume of the cavity to be more or less constant. The external dimensions of the lamp affect its mobility and ease of holding but have no direct effect on its efficiency.

Size and shape of the cavity. Cavity size and shape are much more important than the external contours. The sloping sides of the cavity allow good contact between fat and wick; this is essential to establish the circuit of melting→supplying the wick by capillary attraction →maintaining the flame→melting. To this end it is preferable that the piece of fat be placed slightly across the wick so as to soak it as the fat becomes runny. The sides of the cavity must therefore be sloping, particularly in the case of small ones in which lack of space hinders the expansion of the wick (fig. 5).

Nature of the fuel. The quality of the fuel depends on the speed with which it melts on lighting. The melting must occur at a low temperature. Moreover, the fat must not contain too much adipose tissue. Of the fuels tested, the fat of Phocidae, Equidae, and Bovidae, in that order, appears to be the most efficient. The results of physicochemical analyses of several residue samples taken from Palaeolithic lamps have shown the presence of fatty acids closely resembling those of Suidae and Bovidae in composition, but the composition of certain fats available in the Palaeolithic is unknown and so cannot be compared with these results.

Nature of the wick. The wick must, by definition, have the property of absorbing melted fat by capillary attraction and of conveying it to the free end without being consumed too rapidly itself. The form and structure of this wick influence its efficiency. Of the different wicks tested, lichen and moss and then juniper appeared to be the easiest to use. Moreover, lichen is the preferred wick of the Eskimos. Palaeolithic samples sent to the wood laboratory in Zürich by the Dellucs and ourselves showed the presence of conifers, juniper, and a grass (in one case) and of non-woody residues, but it should be borne in mind that juniper is never completely consumed and so is preserved better than other plants.

Traces of use. The traces observed on experimental specimens provide useful information about those on Palaeolithic lamps. Their appearance and nature are dependent on the functional zone of the lamp (position of the fat and of the wick, drainage zone for the melted fat, storage of "oil," etc.). The same stain may be produced by different phenomena. Blackening, for example, may be produced by carbonisation of the wick, by flames (soot), or by charring of residual adipose tissue. Moreover, if the lamp is used on several occasions and the placement of the different elements is modified each

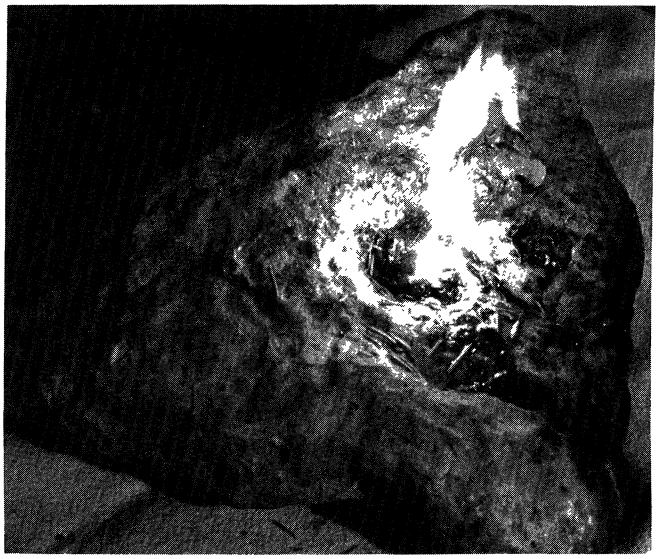

FIG. 5. *Experimental limestone lamp with the cavity opening on the side, using equid fat and juniper. 252 × 197 mm (photo S. A. de Beaune).*

time, it will be blackened and scorched right round the bowl. The melted fat, as it runs away, carries particles of charcoal that may be deposited on the sides and even the outside of the lamp. If this fat is still burning, it may scorch certain types of raw material. Thus it seems that certain Palaeolithic lamps thought to have been heated in a hearth may have become scorched on the outside simply by contact with the fat or, if the bowl is fairly thin, by the conductivity of the rock.

The lamps may function in an "open circuit," with the melted fat draining away, involving a loss of fuel, or in a "closed circuit," with the melted fat being stored in the cavity. Experiments have shown that the ideal is to obtain a compromise between these two systems so that the lamp can be emptied simply by tipping it up and the wick does not become swamped in melted fat; sloping sides or a gap in the rim facilitate this operation. We have found that the first of these solutions is the one largely adopted in the Palaeolithic (80% of them have sloping sides).

As a result of all these experiments, it has been possible to define a type of lamp that would work "ideally." It corresponds to the largest category of Palaeolithic lamps, which we have called bowl lamps: it is a medium-sized limestone lamp with an oval or circular bowl and sloping sides, fitted with a lichen wick and fuelled with the fat of Equidae or Bovidae (seal fat is more efficient but must have been rare in the Palaeolithic). The light produced by one of these lamps is feeble (less than that of a standard candle) but sufficient to guide one's steps in a cave or even to do quite fine work provided it is placed close by.

The commonest Palaeolithic bowl lamps and the experimental lamps that worked most simply and efficiently are reminiscent of the crude little lamps used by southern Eskimo peoples. It must be borne in mind that these Eskimo lamps are associated with certain characteristics of the environment and way of life, the most important of which are the absence of good raw material, such as steatite, the use of hearths for cooking, heating, etc., the scarcity of fat from marine animals, and the specialised function of the lamp, for lighting only. These four conditions are strangely reminiscent of Palaeolithic times. It would be inappropriate to speak of influence or filiation, but it may be that what we have here is convergence, the environmental conditions of Palaeolithic man and certain Eskimo populations being more or less comparable. Moreover, as Leroi-Gourhan (1936) has shown, the use of fat-burning lamps by these two human groups is not the only known instance of convergence.

Measurements made by photometer of the illumination provided by a modern replica and calculation of its luminous intensity and of the luminance of a surface lit by one give low values. While a feeble light limits visual acuity and contrast and colour vision, this is partially compensated for by adaptation. Moreover, it is known that differences in visual perception exist between peoples. The genetic factors affecting vision are still unknown and the subject of some controversy, but the influence of habits of gesticulation and of education and motivation is well demonstrated. Therefore we may suppose that the vision of Palaeolithic man was better adapted than ours to his environment. All we need do to convince ourselves is to consider the difficulties experienced by an "uninitiated" modern observer, compared with a "motivated archaeologist," in seeing an engraving deep in a cave; his training and motivation favour the archaeologist just as they did the Palaeolithic artist.

If the use of the lamps is indeed conditioned by a number of morphological and technical contingencies (the shape of the cavity, the nature and position of the wick and the fuel, etc.), the different types of lamp observed do not constitute a response to any technical evolution, since they are contemporary. Therefore we are not faced, as might have been supposed in the introduction, with different "functional approximations" tending towards an "ideal function" but with different responses to several needs. If the lamps with sculptured handles represented the culmination of techniques of fashioning and of use, we should have found a chronological evolution from the crudest to the most elaborate lamps. But we found nothing of the sort; the three types are contemporary in the Magdalenian, and the most elaborate lamps go back as far as the end of the Upper Palaeolithic.

The simultaneous existence of these variants in form, degree of fashioning, and use ("open-" or "closed-circuit") thus confirm that there were differing needs. While the presence of particularly "fine" lamps does not justify inferring a ritual use, their rarity shows that we are not dealing with an everyday utensil. On the other hand, the rarity of the slab lamps can be explained by their occasional character, as has been observed among the Eskimos; but we must not forget that this type of crude-looking luminary may have been ignored and overlooked in early excavations. As for the bowl lamps, we may assume that these were normal domestic utensils.

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Sepik Culture History: Variation, Innovation, and Synthesis[1]

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The anthropological study of the Sepik Basin of Papua New Guinea has a fitful history. In the early decades of this century, after Finsch, Thürnwald, and Behrmann had introduced the vitality of Sepik art and ritual to a world audience, the research future seemed bright. During the 1930s, Bateson presented his kaleidoscopic analyses of the river-dwelling Iatmul. U.S. students of culture and personality were coming to grips with the implications of Mead's Chambri–Mundugumor–Mountain Arapesh trinity. Hogbin and Wedgwood were focusing ethnographic attention on the offshore Schouten Islanders, and Kaberry was laying a research foundation for many future ethnographers of the foothills Abelam.

But with the Second World War, Sepik anthropology began to sour. In preference to a region veiled in images of mosquitoes, mildew, and lurking crocodiles, with its cultures still massively disrupted by the New Guinea campaigns, ethnographic attention increasingly turned to the newly opened Highlands. Some of the consequences, as Tuzin (1976) observes, may be irremediable: apart from students of "primitive" art, ineluctably drawn to the Sepik masters, the following 25 years saw little ethnographic work beyond the occasional writings of Catholic missionaries.

Fortunately, the last 15 years have seen a resurgence of interest in the Sepik, marked by an influx of ethnographers and other researchers from the English-, French-, and German-speaking worlds. The strength of this revitalization was evident when, in August 1984, the Wenner-Gren Foundation for Anthropological Research and the Museum für Völkerkunde und Schweizerisches Museum für Volkskunde brought 62 Sepik scholars and