SHORTER CONTRIBUTIONS

Palaeolithic Art and Natural Rock Formations

by G. de G. Sieveking

Department of Prehistoric and Romano-British Antiquities, The British Museum, London WC1B 3DG, England. 23 in 82

Rogers’s “Palaeolithic Cave Art in the Wye Valley” (CA 22: 501–2) should be seen in context. He first published his claims for the Wye Valley site in December 1980 in a long article in a popular journal (Rogers, Pinder, and Russell 1981). As no Palaeolithic cave art is known to exist in Britain, and as no British prehistoric archaeologist had seen or even heard of the alleged discovery, this caused quite a stir. It immediately became important that another opinion should be obtained, principally on the character of the so-called Palaeolithic engravings, but also on the finds from Rogers’s excavations, neither of these being adequately represented by the illustrations accompanying his article. The site in the Wye Valley was identified in the article as at Symonds Yat, a well-known beauty spot on land owned by the Forestry Commission, a government agency. Rogers’s excavations had been carried out without their knowledge. The site was also of interest to another government agency, the Inspectorate of Ancient Monuments, responsible for protecting rare prehistoric sites, such as that apparently discovered by Rogers. The British Museum was therefore officially asked to advise the Forestry Commission on the character and value of the site and the excavated material. After some delay, Rogers’s cooperation was obtained, and in February 1981 a visit to the site by representatives of government agencies, including a group of specialists, was arranged.

The report on this meeting was published in extenso in Antiquity in July 1981 (Sieveking 1981) and made available to Rogers some months earlier. As regards the alleged finds of Palaeolithic art, expert opinion was unanimous: the so-called engraved lines were entirely natural in origin. (For the con servation of readers of CURRENT ANTHROPOLOGY, I quote below part of this report.) During the February meeting both the fact that expert opinion was unanimously against accepting the engravings as human productions and the reasons for this decision were made quite clear to both Rogers and his associate. Also in February 1981, four other Palaeolithic archaeologists visited the site, and these too reported in the national press their adverse decision on the so-called engravings. Some weeks after our meeting, the journal in which Rogers had published his original article printed a guarded retraction (cf. Antiquity 55: 89) recognising that expert opinion did not support Rogers’s assertions.

It may be thought that we are labouring this point unduly. After all, experts may be wrong as well as anyone else. However, though it was made quite clear to Rogers at the time and later that professional opinion was against him in this matter, and this was publicly acknowledged by him in a television interview after the meeting, it is to be noticed that there is absolutely no mention of this fact in the article published in CURRENT ANTHROPOLOGY some nine months later and purporting to be a scientific report of the first Palaeolithic cave art known in Great Britain. To this extent at least the report must be regarded as seriously misleading.

As regards the nature of the evidence put forward by Rogers as representing Palaeolithic art in the Wye Valley, I quote here the relevant paragraphs from the published report of the meeting (Sieveking 1981: 123–24):

The four experts were principally concerned with the alleged Bison figure, illustrated in the publication (ILN, January 1981), that is situated on a rockface on the right hand side of the cave or shelter wall, above a small boulder. The figure is agreed by Mr Rogers and Mr Russell to be a natural rock formation. The outline of a hind leg is simulated by a flat upstanding plate of rock, and the line of the back of the animal was also suggested by the contours of the rock. Such utilisation of natural rock contours is of course a commonplace in palaeolithic art, but can only be put forward if there is some evidence of artificial improvement of the natural contour, such as the completion of figures by engraved lines. Mr Rogers and Mr Russell suggested that such engraved lines were present. Principally, they claimed that the entire line of the belly of the animal was an engraved line and that a further group of short parallel engraved lines existed on the body of the animal. These lines were claimed to be further defined or emphasized by a green incrustation or infilling, that they termed inlay, and suggested was copper oxide or copper sulphate. Small nodules of copper sulphate were also claimed by Mr Rogers to have been found in his excavation in the same site, but these have not been shown to us.

Study of the so called engraved lines showed that these were in fact natural features. In one major line, the carved line simulating the belly of an animal, was clearly the fracture line where a rock fragment had been detached from the wall. As Dr Wainwright observed on the site, this is a typical example of rock exfoliation. When we examined the rock face in detail, a number of similar examples of exfoliation were observed. In each case the flake detached from the rock wall appears to have been roughly triangular in cross-section, thicker at the base than the top, and with a negative scar ending abruptly along its lower edge, where there is considerable change in level on the rock face. The obtuse angle followed by the return between the flake scar and the main wall surface appears to resemble a groove (or engraved line) to the untutored eye. Careful examination with the eye and lens shows that there is no groove or change of level along this line, which means that the break is between the two faces. However, the line produces a catchment for moisture draining down the rockface and therefore is a convenient refuge for green algae, or some similar plant formation, that picks out the line for the eye. It is undoubtedly this microscopic plant that provides the green colouring matter referred to by Rogers as copper sulphate. Such colouring is not confined to the line on the alleged Bison figure, but is present in a number of the similar “grooves” on the main wall surface. The so-called “animal body” line on the wall, a group of two or three small parallel lines on the “animal body” were brought to our notice. These were in fact sedimentary current bedding microstructures in the limestone, characteristic of the depositional environment of the rock. The microstructures have been picked out in negative, as a result of alternation of soft and hard bands of sediment being eroded. Similar but more pronounced parallel lines were found at a number of places elsewhere on the rock, and one was particularly well developed on a light coloured surface, protected from the weather, which is seen through a “window” in the rock to the left of the figure, close to the cave floor.

Apart from the main figure exhibited to the party as an example of Palaeolithic Art, we were also shown another supposed representation of a deer on the rock wall at the foot of the limestone escarpment, several feet away. This was a case of a sub-horizontal limestone shelf 30–45 cm above the path. Rogers agreed that the figure was less convincing than the “Bison” and said that he would not have put it forward if he had not been convinced by the other figure. No trace of artificial engraved lines could be seen on this figure by any of the experts in the official party. The outline of the deer, where perceptible, appeared to result from the detachment of numerous minute flakes due to horizontal weathering of the underside of the shelf. Constant weathering was observed to have kept this surface fresh and light-coloured, in contrast to the dark-coloured and deeply patinated vertical surface we examined in the cave or rock shelter, where the first figure was situated.

In fact, the irregularities in the rock face that Rogers describes as ancient are almost certainly of very recent origin. The site referred to in the CA contribution as Cave No. 5615 (no survey or enumeration of the caves in this district is known to exist)
is not an enclosed cave, but a concave rock wall beneath an overhanging rock roof of the type generally known in English as a rock-shelter and more precisely described by the French term abri sous roche. Rogers’s shelter forms part of a continuous outcrop at the top of a steep escarpment and is quite open and unprotected from the weather. The formation of such shelters has been well described by Laville (1975) and others. The concavity of the rock, says Laville (p. 15, translation mine),

coincides with a less permeable layer where the rocky surface is perennially or seasonally saturated. This humidification of the walls is a characteristic of the Périgord abris sous roches. . . . [the example described] has in the upper part of the concavity a series of small orifices 1–2 cm in diameter from which flow, after heavy rains, thin trickles of water that maintain the humidity of the rock. A vegetation of algae, moss and ferns and also a black patina of the rock marks the most humid zones.

Though damp and the action of plant acid lead to corrosion of the surface of the rock (Fenelon 1968), the main cause of weathering on the rock face is held to be the operation of seasonal freeze/thaw. Laville says of the French examples (p. 15),

In nearly all shelters the humidification of the limestone cliff by the discharge of groundwater has led to preferential freezing at this level. . . . In certain privileged spots, generally very humid and sheltered from the sun, lighter zones cut across the black patina of the rock, indicating the recent detachment of rock fragments. (At the site discussed) the shelter wall still shows the traces of the last few winters. The wall, blistered by the frost, free, piece by piece, large flakes of limestone.

If the process of frost shattering is controlled primarily by the degree of saturation of the rock, experiments and study of present-day conditions have shown that the production of large quantities of the debris in the form of small flakes is a result of the action of a daily cycle of freeze/thaw between temperatures (−5° C. + 15° C.) easily attained during present-day winter conditions on the Welsh border (Guillien and Laurantou 1970). There is no doubt that this mild but regular and repeated freeze/thaw, rather than the severe annual freeze/thaw characteristic of periglacial conditions, is responsible for the results of frost shattering that we have been examining (cf. Laville 1976).

In the case of the two major rock “engravings” described above and the other possible example mentioned by Rogers (cf. Sieveking 1981), it seems almost certain that these were formed in the manner described above and that the second example is the result of frost weathering in the last few seasons. As the first described example is patinated black, it is probably the result of frost action and corrosion a few seasons earlier.

As well as describing the rock formation, Rogers in his CA contribution summarises the results of his 1980 excavations, first reported on in his earlier article (Rogers, Pinder, and Russell 1981). The British Museum was asked by the Forestry Commission (the owners of any archaeological remains excavated in this property) to assess the archaeological and scientific value of the artefacts and fauna recovered and the structures recorded in this excavation. Rogers demonstrated some of the finds and exhibited plans of the excavation and of the structures to the specialists at the meeting in February 1981. Subsequently a portion of the finds said to represent the complete collection was surrendered to the Forestry Commission and later submitted to the British Museum for examination. However, despite numerous requests, the notebooks containing the records of the stratigraphic positions of the individual finds and all the excavation plans and sections were retained by Rogers and are not available for consultation. In the circumstances it has been difficult to reach any certain conclusion as to the nature of the Wye Valley site.

Without documentation, we could not isolate the two assemblages characterised by the excavator as belonging to the Mousterian and Creswellian cultures respectively and presumably coming from two separate levels in the shelter filling. Additionally, a number of the finds revealed gaps in the sequence of numbers marked upon them, indicating that some finds may be still to come. All that can be said on the basis of the archaeological finds actually available for study is that no Mousterian industrial refuse can be identified, either in the form of standardised tool types or in that of Middle Palaeolithic flake technology. The sparse flint assemblage consists nearly entirely of fragments of microlithic blades, including one or two with secondary retouch, that could belong to the Creswellian or to any later British Mesolithic culture; no culture-specific tool types are present in the collection. (Though one possible Creswellian point or knife blade was shown in February 1981, this was no longer in the collection.) There was no trace in the collection of any flint that could be specifically identified as “Grey Lincolnshire flint” or as “brown flint from the Thames Valley,” nor was there any mineral that could be recognised as either copper sulphate or malachite that could have been used for colouring the engravings. There were, however, a considerable number of faunal fragments, including some undoubted Pleistocene species. It seems likely, therefore, that there are Pleistocene deposits in the cave or shelter from which these came.

In addition to archaeological finds, Rogers reported the existence of Middle and Upper Palaeolithic structures that he termed dwellings, identified by the presence of postholes and organic matter. No photographs of the excavation were available, so it is difficult to judge to what extent these details are to be relied upon. The Upper Palaeolithic shelter sounds most unusual in ground plan. Postholes would be in fact extremely difficult even for a professional archaeologist to identify and excavate accurately in such dark soil.

As regards the preservation of organic matter, Rogers has claimed (in CA) to have identified a tree trunk supporting the Upper Palaeolithic dwelling and “animal hair” in the floors (not present in the submitted collection). In the previous publication he spoke of “moss” used in construction of the dwelling and “material with which the hut was covered.” Such organic matter is scarcely ever found in prehistoric deposits unless they are frozen bone-dry or water-logged: in well-drained cave sediments, at the top of a steep slope and exposed to the heavy rainfall characteristic of the Welsh borderlands of the present day, they could not be preserved for more than 50–100 years at the most. It is thus almost certain that the dwelling traces with which they are associated, described by Rogers as Upper Palaeolithic and Middle Palaeolithic dwellings, are themselves of modern date, and that the cave sediments are disturbed and the flint artefacts found in the excavation are not in situ. Since Rogers is apparently untrained as a prehistoric archaeologist (cf. Antiquity 55:81–82), it is perhaps not surprising that, with

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Formal Organizations

by Larissa Lomnitz

*Universidad Nacional Autónoma de México, Ciudad Universitaria, México, D.F., Mexico.* 2 H 82

Formal organizations are becoming the prevailing social form of organization in complex societies. From birth to death the individual is controlled by hospitals, schools, universities, armies, corporations, parties, and bureaucracies. Yet, these organizations have been the subject of relatively few anthropological studies. In view of this situation, a conference sponsored by the Wenner-Gren Foundation was held at Burg Wartenstein, Austria, July 19-27, 1980. Its purpose was twofold: (a) to legitimate among anthropologists the field of research on formal organizations and (b), through interactions with sociologists and other social scientists, to assess the state of the art and identify the problem areas best suited to study with the techniques and theoretical approaches of our disciplines. The organizers recognized that interdisciplinary interaction represented a challenge and that a common area of interest had to be found. It was agreed to focus on the problem of power in formal organizations, a subject of central interest to sociologists, political scientists, management scientists, and anthropologists.

As might be expected, the meeting produced challenges and frustrations arising from differences between the intellectual frameworks used by anthropologists and nonanthropologists. The latter were used to focusing primarily on the organizations themselves, while the anthropologists tended to insist on a holistic approach which made frequent reference to the society at large and little explicit structural analysis of the organizations. Furthermore, anthropologists tended to adopt the perspective of the individuals with little power in organizations, while organization experts—particularly those dealing with power and decision making—were more accustomed to the perspectives of power wielders. The organizers assumed that anthropologists had much to offer in the way of theory on subjects such as culture and ideology, the nature of power, and relations between the organization and the wider society. The organization experts, on the other hand, tended to discuss broad theoretical issues: their interest in the anthropological contribution seemed largely confined to methodology, mainly interviewing techniques. The recurrent discussions between Henry Mintzberg (organization science) and Laura Nader (anthropology) epitomized the difference in viewpoints (part/whole, above/below, technique/theory) between these two groups. These discussions led to illuminating insights into the natures of both fields and into the problems of interdisciplinary research.

Participants were invited on the basis of fieldwork experience with power holders in formal organizations. Since few anthropologists have been active in the field of formal organizations, particularly at decision-making levels, the organizers, Louis Wolf Goodman and Larissa Lomnitz, attempted to select representatives with different scientific networks and experience of different kinds of organizations. Unfortunately, many potentially valuable and interesting persons could not be included, and others could not attend. The final list of participants was the following: Peter Abell (University of Surrey), Myron J. Aronoff (Rutgers University), Frederick G. Bailey (University of California at San Diego), Susan Baggett-Barham (University of Adelaide), Steve Barnett (The Planning Economics Group), Carole Browner (Wayne State University), Raul Carvajal (UNAM-HIMAS), Louis Wolf Goodman (Yale University), Jerald Hage (University of Maryland), Bruce Kappler (University of Adelaide), Larissa A. Lomnitz (UNAM-HIMAS), Emanuel Marx (Tel Aviv University), Henry Mintzberg (McGill University), Laura Nader (Woodrow Wilson International Center for Scholars), David Serber (Serber-Doumani and Associates), and Michael Useem (Boston University).

In his introductory paper, Fred Bailey delivered an overview of anthropological concern with formal organizations. He began by noting the virtual absence of studies in the field. Rather than describing the state of the art, Bailey discussed conceptual frameworks relevant to organizational studies. He defined power (as "the ability to make people do something whether they want to or not") and proposed that, in their research, anthropologists consider such problems as the nature of power, the nature and use of authority, the distinction between coercion and cooptation, and forms of manipulation. He suggested the development of a grammar of maneuvers and tactics and an analysis of rhetoric, which is used both to induce compliance and to legitimate the exercise of power. He pointed out that formal institutions provide opportunities for cross-cultural and comparative studies, for example, among institutions as different as the army, the hospital, and the civil service.

Henry Mintzberg provided a survey of the literature on formal organizations. He defined power as the "ability to get things done" and offered a typology of power configurations in formal organizations and an evolutionary model to describe the transitions from one configuration to another. He noted a shift in the literature from analyzing the purposes of an organization to discussing its power structure; yet, he suggested, theory has stopped at the definition of power without enquiring into its content. He urged study of the kinds of "influences"—external (e.g., shareholders, suppliers, partners, clients, and competitors) and internal (e.g., executives, managers, operators, analysts, and support staff, as well as the ideology of the organization)—that wield power in formal organizations. Mintzberg suggested that the power configurations found in formal organizations may be understood as the result of coalitions of sets of internal and external influences. He then...