

# Book Reviews

## New Questions for Cultural History

**Çatal Hüyük.** A Neolithic Town in Anatolia. JAMES MELLAART. McGraw-Hill, New York, 1967. 232 pp., illus. \$9.95.

From time to time archeologists have the good fortune to discover abundant remains of a sort which under ordinary circumstances perish. When such a discovery is made, the interpretative horizon for the period to which the remains belong is often greatly extended. Such is now the case with the Neolithic period as seen in ancient Anatolia, modern Turkey, through the recent discoveries of James Mellaart at the site of Çatal Hüyük. Mellaart made a considerable effort to survey the plains of the southern Anatolian plateau in order to map out some general patterns of occupation on the basis of surface collections of pottery and artifacts. From this work he became convinced that the area had been occupied by Neolithic peoples—a revolutionary conclusion in view of the then current assumption that the plateau had been, for practical purposes, unoccupied during the Neolithic. He selected Çatal Hüyük, a twin mound some 50 kilometers south-east of Konya, as a test site.

The results of his first three seasons of excavation are presented now to the general reader in a volume which summarizes his initial impressions and working hypotheses relating to the wealth of cultural materials dating from between about 6500 and about 5700 B.C. found at the site. These materials have a double impact. On the one hand, they establish the Anatolian plateau as an important center of cultural innovation in the 7th millennium B.C., comparable to other areas already known in the Near East; on the other hand, the variety of preserved materials—copper, wood, textiles, frescoes, and plaster reliefs—and their excellent state of preservation have enlarged our understanding of

the level of achievement already reached in the 7th millennium.

The book is devoted chiefly to a descriptive resumé of the finds, with special emphasis on the architectural details and general plan of the closely packed buildings cleared in one area of the town. This area, which the excavator takes to be a religious quarter housing priests and “shrines,” consists of small buildings built against one another and entered through the roof by ladders. A general similarity of construction and furnishing runs through the structures, with each having sleeping platforms, hearths, and ovens. From simple houses with plain walls there is a gradation to the quite elaborate “shrines” decorated with raised plaster relief figures of animals or human beings—bulls and “goddess” figures particularly—and elaborate frescoes ranging from geometric textile (?) patterns to scenes of hunting and ritual activity. Accompanying these houses are secondary burials placed beneath the sleeping benches; the burials which were more elaborate with respect to associated gifts were associated with the more elaborate “shrines.” In the graves and on the floors of the houses (some of which had been burned) were many small objects such as baked-clay stamp seals, wooden vessels of numerous kinds, beautifully chipped dagger blades, carefully worked hooks and pins of bone, and a variety of extremely interesting modeled clay figurines and small stone statuettes in the form of steatopygous females, females associated with leopards, and males associated with bulls. Examples of all of these objects and views of the architecture and paintings—in many cases both photographs of the originals and reconstructions—are presented in colored and black-and-white plates as well as in line-drawing reconstructions.

While any final evaluation of this astonishing site must await a full and detailed publication of the finds room by room, its very richness and its general historical context already raise important questions for cultural history in general and for the cultural history of the Near East in particular. Mellaart combines his descriptive text with interpretative discussion of the possible meaning of the material and thereby sets forth some of the points to be debated. He suggests, for example, that a direct continuity may well exist between the general tradition of Upper Paleolithic cave painting as known primarily in Europe and secondarily in Cilicia, and the Neolithic frescoes at Çatal Hüyük. In so doing he stresses the continuing strong emphasis on hunting at Çatal Hüyük in conjunction with agriculture. The question thus arises as to the manner in which a combination of hunting and agriculture may have affected the visual arts. To what extent can the concepts and perceptions of the primary hunters as seen in Paleolithic art be said to carry over into the Neolithic frame of reference? Whether professional art historians will find any connection at all remains to be seen, but in any event the frescoes now constitute the largest body of pictorial art available for the Neolithic Near East and as such add a major chapter to the history of perception and pictorial representation generally. In a similar way, the plaster figures in relief, the statuettes, and the figurines suggest to Mellaart a basic continuity in religious concepts. He sees a link to earlier times in the steatopygous Paleolithic “Venus” figurines, and a distinct carry-over into later cults in the association of goddess and leopard and husband/son consort and bull. Where the lines of enquiry opened up by these seeming connections will lead in terms of supporting evidence remains to be seen. However, as in the case of the frescoes, there is now a real body of evidence with which to work.

Perhaps most startling and puzzling, and potentially most significant, is the apparent specialization of the “shrine” buildings with their rich burials and content of small objects and their flamboyant decoration. What do they mean and how were they used? The excavator interprets them as “shrines,” chiefly set apart from the similar but simpler structures around them by the very richness of their furnishings. Mel-

laart proposes that we are here dealing with the religious or priestly quarter of the town consisting of the houses of the priests and the "shrines" which they tended. Presumably other specialized quarters of the town connected with other economic activities remain to be excavated. Thus, contrary to accepted ideas of the chronology of urban evolution, Çatal Hüyük seems to present full-time specialization of labor formalized in the settlement pattern by special groupings of buildings, with religion already partially institutionalized within a tradition of architecture and art all its own. All these developments formerly had been reserved to the so-called "Chalcolithic" period over a millennium later. More and more we are faced not only with an ever earlier development of many social innovations in the Near East, but also with an increasingly uneven tempo of development in different parts of that region. If careful analysis and further excavation support some of these new hypotheses, a number

of the neat concepts of cultural evolution heretofore held about the Near East will have to be revised, and with them our understanding of the long-range mechanics of cultural change. Mellaart's book provides much provocative questioning along these lines by implication as well as by overt statement. Although the evidence must still be accepted as tentative pending careful study and full publication, this preliminary publication of the results of excavations at Çatal Hüyük opens up new lines of investigation and thought. In a refreshing way, the new data redress a balance and turn our attention from an overworked interest in the ecology of the ancient Near East back to the more central archeological themes of social organization and cultural content, a subject worthy of more intensive study than it has received in recent years.

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## Igneous Limestones

**The Geology of Carbonatites.** E. W. HEINRICH. Rand McNally, Chicago, 1967. 601 pp., illus. \$10.

**Carbonatites.** O. F. TUTTLE and J. GITTINS, Eds. Interscience (Wiley), New York, 1967. 611 pp., illus. \$22.50.

The first published account of calcite-rich rocks occurring in the form of igneous intrusions was given by the Swedish geologist Högbom (1895) in his survey of Alnö Island on the Baltic coast of Sweden. These observations made little impact on petrologic thought at the time, and not until nearly three decades later, with the publication of Brøgger's now classic memoir (1921) on the Fen district of Norway, did the concept of magmatic carbonate rocks gain some recognition. Opponents of the concept were not wanting; Bowen (1924) attributed the origin of the Fen occurrences to hydrothermal replacement, and Shand, basing his opinion on a wider survey, advocated, as late as 1950, solid flow as a mechanism for carbonatite emplacement. In the years since Brøgger's memoir was published carbonatites—a term introduced by Brøgger himself—have been discovered in all the continents with the exceptions of Australia and Antarctica. Today no fewer than 320

distinct localities have been described or listed, the number recorded having been increased tenfold in the last decade. Africa provides the most, not only in number (120) but in total exposed area.

Despite its widespread occurrence it has been estimated that the total area of known exposed carbonatite is of the order of 200 square miles only, and carbonatites form only a small fraction of the alkali rocks with which they are associated. The small volume they represent clearly has a bearing on any theory of their origin.

Carbonatites are the repository of significant concentrations of phosphorus, niobium, the rare earths, and thorium and uranium, and the relatively recent rapid increase in the listing of carbonatite occurrences stems in part from the extensive and intensive mineral search for radioactive ores, particularly uranium, in the period 1950–1956. In the course of this exploration many new carbonatite complexes were disclosed, the rate of discovery being accelerated further by the use of the techniques of aero surveys for radioactive and magnetic anomalies and detailed scrutiny of aerial photographs for the characteristic ring pattern associated with alkali rock-carbonatite

complexes. The two volumes now under review come as a response to the need for an up-to-date summary of the results achieved in the intensive study of these fascinating rocks and their genesis.

*The Geology of Carbonatites* is divided into two parts. The first (329 pp.) is an account of the geology, mineralogy, petrology, and geochemistry of carbonatites, with a closing chapter presenting a well-balanced review of the hypotheses of origin. The economic geology and classification of the mineral deposits of these rocks are given separate treatment, whereas the results of experimental synthesis and the bearing of isotopic studies are discussed as criteria of carbonatite genesis. The second part (223 pp.) is a summary description of the carbonatites of the world.

The author can speak with added authority in that he has had opportunity of studying in the field many of the occurrences he details. African deposits hold first place in this record; Russian occurrences rank next in number, but information made available on many of these is still limited. The book, well illustrated with both line drawings and photographs, provides a well-founded and thorough survey of the subject in all its aspects.

*Carbonatites* has a different framework. The volume contains 17 chapters by 22 authors chosen on the basis of their recent contributions to the subject and their special knowledge of specific aspects of carbonatite geology. The editors have provided an introduction with a historical review of carbonatite studies and also extensive summaries and bibliographies of carbonatite complexes (Gittins, 154 pp.). Two chapters are devoted to experimental studies by Wyllie and by Kuellmer, Visocky, and Tuttle on synthetic carbonate melts and on mixed silicate-carbonate melts. The experimental results are regarded as confirming that many features observed in carbonatite complexes are explicable in terms of carbonatite magmas. Many of the contributors present deductions on carbonatite genesis based on their own field studies, and it is to be regretted that the editors did not summarize the expressed hypotheses and attempt an assessment of these findings.

Both volumes make evident that the origin of carbonatites is intimately interwoven with that of alkali igneous rocks. The ultimate origin of carbonatite magmas remains the outstanding