RETHINKING EARLY PALEOLITHIC TYPOLOGIES
IN CHINA AND INDIA

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Abstract

The concept of a technological “line” separating eastern Asia from western Asia, Africa, and Europe was first proposed by Hallam L. Movius over forty years ago. Despite the fact that other features of Movius’ model have since required revision, his interpretation continues to be widely followed. Recent studies on the rate and extent of gene flow or cultural contact between Early Pleistocene hominid populations in eastern and western Asia have resuscitated Movius’ classificatory scheme to support arguments inferring hierarchical sociobehavioral abilities between these two hominid populations. It is our contention that Movius’ classificatory scheme provides no objective basis for ranking the tool traditions of eastern Asia and the rest of the world.

This study offers an approach to the analysis and classification of Early Paleolithic tools that provides relatively objective criteria for comparing tool traditions. This approach is based upon replication of typologies and technologies for eight Early Paleolithic assemblages in Asia using local sources of raw material. By determining the stages of the tool manufacturing process present, the quality of the raw material, and the range of forms for each site, this approach provides a standard basis for comparison among tool traditions and variations within those traditions.

The last few decades have seen important advances in both the geographical scope and the quantity of data upon which an understanding of the origins of modern humans depends. This flow of information provides the opportunity to take a new look at long-standing questions regarding the evolution of human behavior. Recent re-dating of two Homo erectus sites in Java, Indonesia, for example, has led Swisher et al. (1994) to suggest that Homo erectus left Africa much earlier than expected, certainly before the invention of Acheulean tools, and that this earlier departure and subsequent isolation from other hominid populations explains the general absence of Acheulean handaxes in eastern Asia. These findings breathe new life into the notion that there is a profound difference separating tool-making cultures in eastern Asia from their
counterparts in western Asia, and, by inference, that this difference says something about the evolution of cultural capacity, cognition, and behavior of hominid populations in southern and eastern Asia.

This scenario is similar to other reincarnations of Movius’ hypothesized technological “line” separating the “chopper-chopping tool” tradition of eastern Asia from the “handaxe” tradition of western Asia, Africa, and Europe (Movius 1949; Aigner 1978, 1981; Binford and Ho 1985; Bowdler 1988, 1990; Clarke 1990). While Movius concluded with the inference that the “chopper-chopping” tool traditions of eastern Asia indicate a “marginal region of cultural retardation” (Movius 1969:75), more recent interpretations explain the difference between these two technological spheres in different ways. One interpretive extreme sees a kind of “acultural” adaptation in East Asia (Binford and Ho 1985; Binford and Stone 1986; Bowdler 1988, 1990), while the other extreme hypothesizes a “bottleneck” in gene flow and cultural diffusion from west to east (Aigner 1978:223; Andrews 1984; Groves 1989; Wood 1991; Clark 1993; Rightmire 1992; Schick 1994:593). Swisher et al. (1994) argue in support of the “Replacement Model” or “Eve Hypothesis,” with all modern human populations moving out from Africa, in their reconstruction of the movements of hominids into East Asia (Cann et al. 1987; Stringer and Andrews 1988). They infer that the biological and cultural information leading to recognizably modern human cultural capacity and cognition did not travel from west to east until the arrival of anatomically modern humans who replaced earlier hominids in East Asia (Bowdler 1988; Bartstra 1985, 1987; Groves 1989).

While we have reservations about the re-dating of the Javanese fossils, we harbor even deeper reservations about the resuscitation of Movius’ “two technological and cultural spheres” paradigm. These stem from the interpretive framework used to explain the primary material evidence—the stone tool assemblages—offered in support of these claims. In both Movius’ original inference and the subsequent reformulations, the principal archaeological indicator and standard of human cultural capacity, cognition, and behavior is the evidence for standardized complexity and diversity of artifact assemblages (e.g., Schick 1994).

Paraphrasing K. C. Chang’s (1967) clarion call for a constant “rethinking” of the basic elements of archaeology, we believe it is time to “rethink” certain basic elements in the conceptual framework surrounding the use of stone tool assemblages as a comparative marker between East and West during the Early and Middle Pleistocene. The issue is an epistemological one; the data do not speak for themselves, they obtain their “voices” from the paradigmatic “loading” on basic concepts used to describe the material. As has been pointed out regarding the transi-