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EDITORIAL

The Stage 3 Project

The interval between the two times of maximum ice-sheet extent during the last glaciation is widely known as marine isotope stage (MIS) 3, following the standard oxygen-isotope nomenclature of deep-sea cores. Extending from approximately 60,000 to 25,000 yr ago, it was a time when global ice volume fluctuated considerably, but on average was significantly less than at the two maxima of the last glaciation (MIS 2 and 4). It was a time when global environmental conditions were neither fully glacial nor fully interglacial. It was also an important interval in the long span of human evolution, especially in Europe, where the dominant presence of Neanderthal peoples began to shift to the dominance of modern humans.

Until recent decades, deciphering the environmental history of MIS 3 was made difficult because of chronological uncertainties. In the early years of its development and application, radiocarbon dating was of fundamental importance for deciphering the chronology of events during and since MIS 2, but dates for earlier times often proved unreliable as dating efforts reached the practical limit of the method. During the past quarter century, however, the limit of radiocarbon dating has been extended until it effectively spans MIS 3, the ability to calibrate dates has improved correlation efforts, and new methods have become available for terrestrial deposits, including U/Th and luminescence dating. During these years, major advances in marine- and ice-core stratigraphy; ice-sheet, biome, and climate modeling; and new archeological and paleoanthropological discoveries and analyses have made it possible to interpret the changing environments of stage 3 in a new light.

The Stage 3 Project was formulated with the objective of undertaking a broad synthesis of varied aspects of environments and environmental change in Europe during this important 35,000-yr interval. It involves an interdisciplinary and international mix of scientists who have brought their expertise to bear on varied aspects of MIS 3. Included are such topics as ice-sheet dynamics and history; sea-surface temperature and salinity; climate and vegetation history and modeling; human occupation, habitats, and evolution; human and faunal dispersal; and extinction of the Pleistocene megafauna.

When the editors of *Quaternary Research* were approached with a proposal for publishing the results of the Stage 3 enterprise, our reaction was positive. In the course of our discussions, we agreed that rather than the results being published in a single, dedicated issue of the journal, papers would be considered when individually submitted, and accepted papers would be published in the order of their acceptance. We also agreed that an initial introductory paper for the collection would be authored by Tjeerd van Andel, leader of the project, to "set the scene" for those that would follow. This introductory paper appears in the present issue of the journal, with others to follow during the next several years. Each accepted paper in the series will be identified as being related to the Stage 3 Project. We think that these inter- and multidisciplinary papers will of broad interest to readers of *Quaternary Research* and will mark a significant milestone in our understanding of a major and important part of the last glaciation.

The Editors

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