What is one to make of Powers's book in light of all this? Obviously the book, like a critical mass of uranium, should be handled with extreme caution. I do not know what would have happened if Heisenberg had actually been able to build his reactor and then had been confronted with the question of actually building a bomb. There is nothing in his wartime behavior that suggests to me any high moral purpose, so my guess is that, like any good soldier, he would have done what he was told to do. That it never came to that point we can all be grateful.

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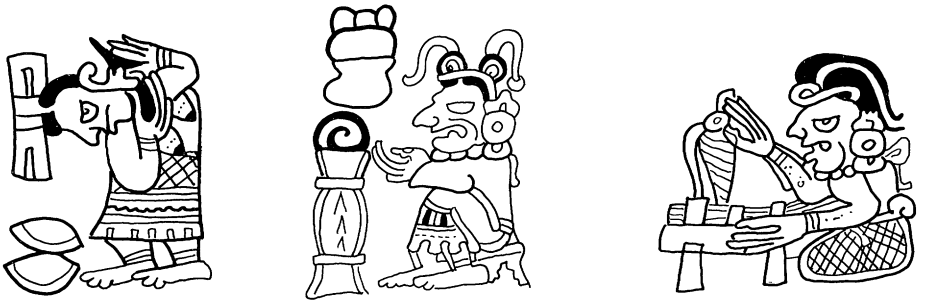
The Maya Pantheon

The Major Gods of Ancient Yucatan. KARL ANDREAS TAUBE. Dumbarton Oaks Research Library and Collection, Washington, DC, 1992. viii, 160 pp., illus. Paper, $18. Studies in Pre-Columbian Art and Archaeology, no. 32.

The ancient Maya of southeastern Mesoamerica conceived of the world of ordinary human beings, animals, plants, and other objects as coexisting with and interpenetrated by a vital supernatural realm pervaded by sacred power and populated by a host of deities and spirits. The often baffling complexity of Maya gods, usually depicted as marvelous mixtures of human, feline, reptilian, and avian features, has contributed to the popular image of the "mysterious Maya." *The Major Gods of Ancient Yucatan* is an excellent new analysis and synthetic interpretation of most of the principal gods of the ancient Maya, clarifying and demystifying their forms and functions in a rigorous, scholarly manner, while simultaneously conveying some sense of the numinous powers they represented for their devotees.

Taube notes in his introduction that there is no "elegant model" by which the manifold deities of the Maya of Yucatan can be organized and interpreted. His method thus is to reexamine methodically the widely used alphabetical classification of Maya gods first established by the German scholar Paul Schellhas (in articles of 1886 through 1904) and subsequently modified by scholars such as Günter Zimmermann, J. E. S. Thompson, Ferdinand Anders, and David Kelley. In his introductory remarks Taube first addresses a recurrent debate regarding whether Classic Maya religion was based on a well-defined pantheon of gods or consisted of a series of shifting, metaphorical depictions of natural forces. Citing the many continuities between Post-Classic and Classic gods outlined in his study, Taube makes a strong case that the Classic Maya worshipped individualized deities, although he notes that the same term that refers to a god (*ku* or *ch'u*) can also refer to the concept of sacredness (as is the case for the Nahuatl term *teotl*).

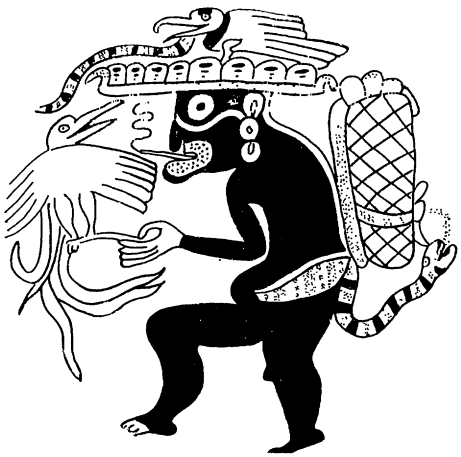


Maya Goddess I, "an aged and frequently clawed water goddess who wears a serpent as a headdress." In these Post-Classic portrayals the goddess is shown (left to right) letting blood from her ear; with offerings; and weaving. "The suggested glyph [for Goddess I], a youthful female head prefixed with the *zac* white sign, is almost identical with the glyph assigned for Goddess O," suggesting that the two may be "young and old aspects of the same being." [From *The Major Gods of Ancient Yucatan*]

The principal value of Taube's new contribution is its successful effort to relate the alphabetical god list, which originally was derived primarily from contextual studies of deity representations in screen-fold manuscripts or "codices," to other, newer sources of evidence. These include recent discoveries in the epigraphy and iconography of Classic Maya sculpture (as outlined in *Science* **256**, 1062 [1992]), as well as a tremendous increase in knowledge of the subject matter depicted on Classic Maya ceramics. Michael Coe and others have demonstrated that such pottery scenes sometimes depict Classic-period forerunners of the mythical heroic twins described in the Quiche Maya epic, the *Popol Vuh*. Taube demonstrates that these and many other deities portrayed in Classic-period art have clear counterparts in the Post-Classic codical representations. Examples include the rain god Chac (God B), who has an axe-wielding prototype in the Classic-period deity Chac-xib-chac (GI of the Palenque Triad); the young maize god (God E), shown emerging from a turtle carapace on Classic ceramics; the young moon goddess (Goddess I); the storm god and lineage patron (God K or *kawil*); and the old mountain god and world sustainer (God N or *pauahtun*). Because he emphasizes the deities of the Post-Classic manuscripts, however, Taube devotes less attention to other important Classic-period gods or personifications of sacred locales (such as the cosmic monster, the *cauac* or *witz* monster, or the jaguar god of the underworld).

The book also provides an overview of foreign deities, such as Xipe Totec, Quetzalcoatl-Kukulcan, and Tlahuizcalpantecuhtli, most of which represent late introductions into the northern Maya region from Central Mexico or the Gulf Coast region during the Post-Classic period (about A.D. 900–1521). The identification of these deities is generally persuasive, although two central Mexican deities, Tlachitonatiuh (earth sun or sun at horizon) and Tezcatlipoca (smoking mirror), originally identified at Chichen Itza by J. E. S. Thompson, are not discussed.

Taube marshals a wide range of epigraphic, iconographic, ethnohistorical, and ethnographic evidence to identify the character and significance of the major deities of Yucatan in a clear and persuasive manner. An ample number of excellent illustrations depict the variations in the gods' hieroglyphic names and pictorial representa-



Maya God L, smoking, with a merchant bundle and long-tailed bird. Traits of God L include agedness, black body coloration, and the bird worn on the head. The bird has been identified as the Moan screech owl, which is closely identified with the underworld and with rain. "God L is not a major deity of the Late Post-Classic period; instead the vast majority of known God L representations appear in early Classic scenes." [From *The Major Gods of Ancient Yucatan*]

tions. Specialists will question minor aspects of Taube's arguments and identifications, but they are basically sound. Readers wanting to learn more about the ways in which deities were and are integrated into ancient and modern Maya myth and ritual will need to read further, but *The Major Gods of Ancient Yucatan* will provide anyone interested in ancient Maya religion with an excellent introduction.

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Language and Prehistory

Linguistic Diversity in Space and Time. JOHANNA NICHOLS. University of Chicago Press, Chicago, IL, 1992. xvi, 358 pp., illus. $39.95.

Much of modern linguistics is devoted to identifying what all human languages have in common: which characteristics of languages are necessary and essential and which are accidental or contingent. The field of linguistic typology has tended to approach this problem empirically, by examining the characteristics of large numbers of diverse languages. For example, it has been shown that languages that put demonstratives like *this* or *that* after the noun rather than before it have a strong (though not exceptionless) tendency to put adjectives after the noun also.

Other approaches (such as Noam Chomsky's) reject deriving linguistic universals from such linguistic beauty pageants and focus instead on intensive study of particular problems in particular languages, arguing that, if properly investigated, even a single language, like a holographic image, can enable us to fill in much of the picture of language in general.

The approach of the book under review is more akin to the first approach, but with an important difference: Nichols examines the global distribution of linguistic features not in order to identify linguistic universals but rather in order to focus on the differences among human languages and on what the distribution of these differences might indicate about the prehistory of human language. Nichols argues that more traditional methods—such as the comparative method that was used to reconstruct the history of the Indo-European language family—cannot take us earlier than about 8,000 to 10,000 years ago and that to go to greater time depths new methods are necessary. The power of the comparative method, and its very definition, is still under debate in the linguistic community, and it is possible that Nichols's pessimism about it is unfounded. But new tools for investigating linguistic prehistory would clearly be welcome in either case.

Nichols's investigation of the distribution of linguistic traits is not based on the assumption that some of them are more primitive than others, but rather assumes that some features remain relatively stable in a given geographical area or within a single language family and may thus be used as markers to track early speech communities, much as blood types are used as guides to population movements.

For example, Nichols defines a feature she calls "head/dependent marking," which characterizes a language's morphological tendencies. In a sentence like "Noam reads French," the verb *reads* is marked by the