More than 40 years ago, noted astronomer Anthony Aveni changed the course of Mesoamerican studies when he realized the critical connection between the astronomical and anthropological aspects of pre-Columbian societies. Aveni's call for collaboration led to the establishment of a new field, archaeoastronomy, and thus directed the next generation of researchers. The incorporation of cultural connections with celestial studies illuminated the daily lives, religious beliefs, and agricultural practices of the Maya, Olmec, and Aztec. This compilation by noted scholars honors Aveni's work and reflects on how and where cities were built, how architectural orientations were determined, when crops were planted, and how these ancient peoples marked the passage of time.