Record Nr. UNISA996418435203316 Autore Magli Giulio <1964-> Titolo Archaeoastronomy: introduction to the science of stars and stones // Giulio Magli Pubbl/distr/stampa Cham, Switzerland:,: Springer,, 2020 ©2020 **ISBN** 3-030-45147-X Edizione [2nd ed.] Descrizione fisica 1 online resource (XIII, 264 p. 225 illus., 122 illus. in color.) Collana Undergraduate Lecture Notes in Physics, , 2192-4791 Disciplina 520.93 Soggetti Arqueoastronomia Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Part I -- Methods -- Astronomy with the Naked Eye --Nota di contenuto Acquiring Data -- Data Analysis -- Part II -- Ideas -- Astronomy and Architecture at the Roots of Civilization -- Astronomy, Power, and Landscapes of Power -- The Scientific Foundations of Archaeoastronomy -- Part III -- Places -- Megalithic Cultures of the Mediterranean -- Ancient Egypt -- Pre-columbian Cultures -- The Classical World -- Exercises. Sommario/riassunto This is a second edition of a textbook that provides the first comprehensive, easy-to-read, and up-to-date account of the fascinating discipline of archaeoastronomy, in which the relationship between ancient constructions and the sky is studied in order to gain a better understanding of the ideas of the architects of the past and of their religious and symbolic worlds. The book is divided into three sections, the first of which explores the past relations between astronomy and people, power, the afterworld, architecture, and landscape. The second part then discusses in detail the fundamentals of archaeoastronomy, including the celestial coordinates; the apparent motion of the sun, moon, stars, and planets; observation of celestial bodies at the horizon; the use of astronomical software in

> archaeoastronomy; and current methods for making and analyzing measurements. The final section reviews what archaeoastronomy can now tell us about the nature and purpose of such sites and structures

as Stonehenge, the Pyramids of Giza, Chichen Itza, the Angkor Temples, the Campus Martius, and the Valley of the Temples of Agrigento. In addition, it provides a set of exercises that can be performed using non-commercial free software, e.g., Google Earth and Stellarium, and that will equip readers to conduct their own research. This new edition features a completely new chapter on archaeoastronomy in Asia and an "augmented reality" framework, which on the one hand enhances the didactic value of the book using direct links to the relevant sections of the author's MOOC (online) lessons and, on the other, allows readers to directly experience — albeit virtually —many of the spectacular archaeological sites described in the book. This is an ideal introduction to what has become a wide-ranging multidisciplinary science.