Record Nr. UNINA9910299783003321 **Titolo** Architecture and Mathematics from Antiquity to the Future: Volume II: The 1500s to the Future / / edited by Kim Williams, Michael J. Ostwald Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Birkhäuser,, 2015 **ISBN** 3-319-00143-4 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (680 p.) 510 Disciplina 510.9 519 Mathematics Soggetti History Mathematics in Art and Architecture History of Mathematical Sciences Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Part VII: Theories of Representation -- Part VIII: From 1600 AD to 1900 AD -- Part IX: 1900-2000 -- Part X: Contemporary Approaches to Design and Analysis -- Part XI: Theories and Applications of Computer Sciences -- Index -- Acknowledgements. . The aim of this collection of essays is to present a broad portrait of the Sommario/riassunto ways in which two seemingly different disciplines are interconnected. The diversity and varied texture of the essays richly illustrates the affinity between architecture and mathematics. As the almost 100 papers presented in this two-volume publication show, every age and every culture has relied on principles of mathematics incorporated in their works of architecture to imbue their built environment with meaning and order. Included are discussions of geometry, proportional systems, linear algebra, periodic and aperiodic tilings, fractals, perspective, computer science and mechanics. Western architecture of every period is examined: Egyptian, Roman, Medieval, Renaissance,

Baroque, Enlightenment, twentieth-century and beyond, as is the

architecture of Turkey, China, India, Japan, Australia and Islam. The mathematical nature of the architecture of Leon Battista Alberti, Andrea Palladio and Frank Lloyd Wright is examined, and the philosophical background behind Renaissance architecture is explored. Contributors come from a wide range of disciplines and cultural backgrounds: architects, mathematicians, historians, theoreticians, scientists and educators from the world over. Architecture may be seen and understood in a new light, by professionals as well as non-professionals.