1. Record Nr. UNINA9910789316003321 Autore Cucker Felipe <1958-> Titolo Manifold mirrors: the crossing paths of the arts and mathematics // Felipe Cucker, City University of Hong Kong [[electronic resource]] Cambridge:,: Cambridge University Press,, 2013 Pubbl/distr/stampa 1-107-23303-8 **ISBN** 1-107-34737-8 1-139-01463-3 1-107-34860-9 1-107-34112-4 1-107-34487-5 0-521-72876-2 1-107-34362-3 Descrizione fisica 1 online resource (x, 415 pages) : digital, PDF file(s) Disciplina 700.1/05 Soggetti Arts - Mathematics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and indexes. Sommario/riassunto Most works of art, whether illustrative, musical or literary, are created subject to a set of constraints. In many (but not all) cases, these constraints have a mathematical nature, for example, the geometric transformations governing the canons of J. S. Bach, the various projection systems used in classical painting, the catalog of symmetries found in Islamic art, or the rules concerning poetic structure. This fascinating book describes geometric frameworks underlying this constraint-based creation. The author provides both a development in geometry and a description of how these frameworks fit the creative process within several art practices. He furthermore discusses the perceptual effects derived from the presence of particular geometric characteristics. The book began life as a liberal arts course and it is certainly suitable as a textbook. However, anyone interested in the

power and ubiquity of mathematics will enjoy this revealing insight into

the relationship between mathematics and the arts.		