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Titolo	All Sides to an Oval : Properties, Parameters, and Borromini's Mysterious Construction / / by Angelo Alessandro Mazzotti
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ISBN	9783319393759
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Descrizione fisica	1 online resource (X, 160 p. 129 illus., 126 illus. in color.)
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Nota di contenuto	Introduction -- Properties of a polycentric oval.-F -- Ruler/Compass constructions of simple ovals -- Ovals with given symmetry axis lines -- Ovals with unknown axis lines.-Inscribing and circumscribing ovals – The frame problem -- The stadium problem and the running track -- Parameter formulas for simple ovals and applications -- Parameter formulas for simple ovals -- Limitations for the frame problem -- Measuring a four-centre oval -- Optimisation problems for ovals -- Ovals with 4n centres -- Remarkable four-centre ovals .-Appendix.-References.-Acknowledgements. .
Sommario/riassunto	This is the only book dedicated to the Geometry of Polycentric Ovals. It includes problem solving constructions and mathematical formulas. For anyone interested in drawing or recognizing an oval, this book gives all the necessary construction and calculation tools. More than 30 basic construction problems are solved, with references to Geogebra animation videos, plus the solution to the Frame Problem and solutions to the Stadium Problem. A chapter (co-written with Margherita Caputo) is dedicated to totally new hypotheses on the project of Borromini’s oval dome of the church of San Carlo alle Quattro Fontane in Rome. Another one presents the case study of the Colosseum as an example of ovals with eight centres. The book is unique and new in its kind: original contributions add up to about 60% of the whole book, the rest

being taken from published literature (and mostly from other work by the same author). The primary audience is: architects, graphic designers, industrial designers, architecture historians, civil engineers; moreover, the systematic way in which the book is organised could make it a companion to a textbook on descriptive geometry or on CAD.