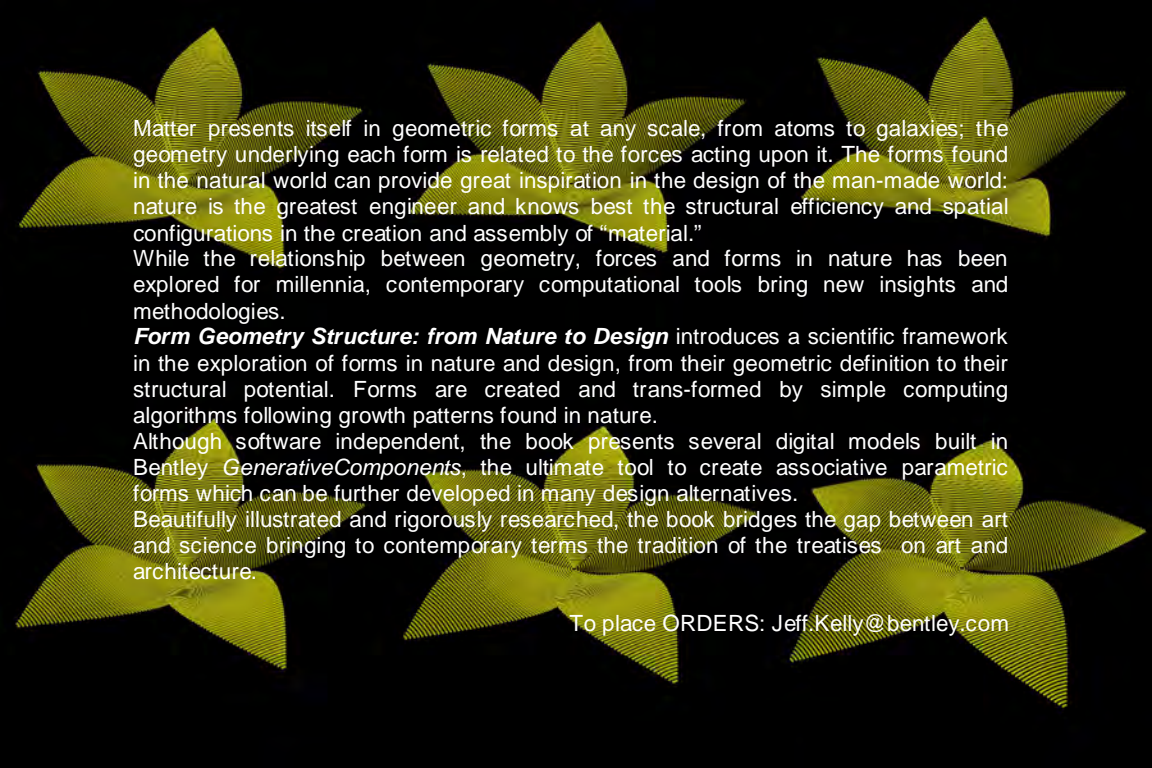




DANIELA BERTOL

FORM GEOMETRY STRUCTURE

from nature to design



Matter presents itself in geometric forms at any scale, from atoms to galaxies; the geometry underlying each form is related to the forces acting upon it. The forms found in the natural world can provide great inspiration in the design of the man-made world: nature is the greatest engineer and knows best the structural efficiency and spatial configurations in the creation and assembly of “material.”

While the relationship between geometry, forces and forms in nature has been explored for millennia, contemporary computational tools bring new insights and methodologies.

Form Geometry Structure: from Nature to Design introduces a scientific framework in the exploration of forms in nature and design, from their geometric definition to their structural potential. Forms are created and trans-formed by simple computing algorithms following growth patterns found in nature.

Although software independent, the book presents several digital models built in Bentley *GenerativeComponents*, the ultimate tool to create associative parametric forms which can be further developed in many design alternatives.

Beautifully illustrated and rigorously researched, the book bridges the gap between art and science bringing to contemporary terms the tradition of the treatises on art and architecture.

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