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Nota di contenuto	Structure for Architects : A PRIMER; Contents; PREFACE; CHAPTER 1 Architects, Engineers, and Design 1; CHAPTER 2 Stability and Strength; CHAPTER 3 Loads; 3.1 Gravity Loads; 3.2 Lateral Loads; 3.3 Dynamic Loads; 3.4 Impact Loads; 3.5 Load Paths; CHAPTER 4 States of Stress; 4.1 Tension; 4.2 Compression; 4.3 Shear; 4.4 Torsion; 4.5 Bending; CHAPTER 5 Forces, Movement, Levers, and Moment; 5.1 Applied and Reactive Forces; 5.2 Translational Movement; 5.3 Rotational Movement; 5.4 Levers; 5.5 Moment; CHAPTER 6 Stability and Equilibrium; 6.1 Introduction; 6.2 Translational Equilibrium 6.3 Rotational Equilibrium 6.4 Sign Conventions; 6.5 The Equilibrium Equations; 6.6 Free-Body Diagrams and Familiar Examples of Equilibrium; 6.7 Introduction to Bending in Beams; CHAPTER 7 Working with Forces; 7.1 Forces, Vectors, and Lines of Action; 7.2 Combining and Resolving Concurrent Forces; 7.3 Familiar Examples of Concurrent Forces; CHAPTER 8 Supports, Reactions, and Restraint of Movement; 8.1 Roller and Frictionless-Surface Supports; 8.2 Pinned Supports; 8.3

Fixed Supports; 8.4 Hanger Supports; 8.5 Familiar Examples of Support Conditions; 8.6 Stable or Unstable?
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12.2 Typical Shear and Moment Diagrams 12.3 Creating Shear and Moment Diagrams; 12.4 Comparing V and M for Uniformly Distributed Versus Concentrated Loading; 12.5 Summary of Deformation, Shear, and Moment Relationships; CHAPTER 13 Stress, Strain, and Properties of Materials; 13.1 Stress; 13.2 Strain; 13.3 Stress versus Strain; 13.4 Properties of Materials; 13.5 Stress Distribution Diagrams; CHAPTER 14 Introduction to Columns; 14.1 Columns, Compression, and Bending; 14.2 Column Loading; 14.3 Column Compression; 14.4 Column Bending; 14.5 Leonhard Euler and Column Buckling
CHAPTER 15 Frames, Rigidity, and Lateral Resistance Systems 15.1 Triangular Frames; 15.2 Rectangular Frames; 15.3 Making Rectangular Frames Rigid; 15.4 Lateral Resistance Systems; CHAPTER 16 Introduction to Trusses; 16.1 Introduction; 16.2 Trusses as Beams; 16.3 Types of Trusses; 16.4 Design Considerations; 16.5 Truss Joints; 16.6 Truss Loading; 16.7 Truss Analysis; CHAPTER 17 Structural Walls; 17.1 Loads and Deformational Stresses; 17.2 Stresses and Wall Construction; 17.3 Retaining Walls; CHAPTER 18 Soils and Rock; 18.1 The Earth's Interior; 18.2 The Earth's Crust; 18.3 Natural Soils
18.4 Groundwater

Sommario/riassunto

An introduction to the concepts and principles of architectural structures in an easy-to-read format. Written as an easy-to-understand primer on the topic, *Structure for Architects* engages readers through instruction that uses a highly visual format and real-world examples to underline the key facets of structural principles that are essential to the design process. Eschewing complicated mathematics and technical jargon, *Structure for Architects* demystifies the subject matter by showing it in the context of everyday situations, giving architects and architectural technologists
