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## Sommario/riassunto

This book presents a unique approach for studying mechanisms and machines with drawings that were depicted unclearly in ancient Chinese books. The historical, cultural and technical backgrounds of the mechanisms are explained, and various mechanisms described and illustrated in ancient books are introduced. By utilizing the idea for the conceptual design of modern mechanisms, all feasible designs of ancient mechanisms with uncertain members and joints that meet the technical standards of the subjects' time periods are synthesized systematically. Ancient Chinese crossbows (the original crossbow and repeating crossbows), textile mechanisms (silk-reeling mechanism, spinning mechanisms, and looms), and many other artisan's tool mechanisms are used as illustrated examples. Such an approach provides a logical method for the reconstruction designs of ancient mechanisms with uncertain structures. It also provides an innovative direction for researchers to further identify the original structures of mechanisms and machines with drawings in ancient literature. This book can be used as a textbook and/or supplemental reading material for courses related to history of ancient (Chinese) machinery and creative mechanism design for senior and graduate students.

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