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Nota di contenuto	Frontmatter -- ACKNOWLEDGEMENTS -- CONTENT -- Introduction. Architecture Research Building -- ICD and ITKE, University of Stuttgart -- RETHINKING ARCHITECTURE -- EXPERIMENTAL ARCHITECTURE FOR THE TWENTY-FIRST CENTURY -- RETHINKING ARCHITECTURE DIGITALLY -- COMPUTATION INSTEAD OF COMPUTERIZATION -- RESEARCH-BASED BUILDING AND BUILDING-BASED RESEARCH -- RESEARCH STRANDS AND DEVELOPMENT LINES -- INTEGRATIVE RESEARCH -- INTEGRATION OF FORM, MATERIAL, STRUCTURE AND SPACE -- BIOMIMETICS AS SCIENTIFIC LATERAL THINKING -- STRUCTURES BEYOND TYPOLOGIES -- INNOVATION WOOD -- INNOVATION FIBER COMPOSITES -- FROM EXPERIMENTS TO APPROVED BUILDING SYSTEMS -- EXPERIMENTAL BUILDING -- ICD/ITKE RESEARCH PAVILION 2010 -- ICD/ITKE RESEARCH PAVILION 2011 -- EXTERNAL POSITIONS -- ARCHITECTURE AND BIOMIMETICS -- EXPERIMENTAL BUILDING -- ICD/ITKE RESEARCH PAVILION 2012 -- ICD/ITKE RESEARCH PAVILION 2013/14 -- EXTERNAL POSITIONS -- MATERIAL CULTURE -- EXPERIMENTAL BUILDING -- LANDESGARTENSCHAU EXHIBITION HALL -- EXTERNAL POSITIONS -- EXPLORATIVE TEACHING -- EXPERIMENTAL BUILDING -- ICD/ITKE RESEARCH PAVILION 2014/15 -- EXTERNAL POSITIONS -- COMPLEXITY AND CONTRADICTION IN MATERIAL COMPUTATION -- EXPERIMENTAL BUILDING -- ICD/ITKE

RESEARCH PAVILION 2015/16 -- EXTERNAL POSITIONS --
COMPUTATIONAL DESIGN -- EXPERIMENTAL BUILDING -- ICD/ITKE
RESEARCH PAVILION 2016/17 -- ELYTRA FILAMENT PAVILION --
EXTERNAL POSITIONS -- INTERDISCIPLINARITY: A NECESSARY MEANS
FOR INNOVATION IN A NEW GLOBAL CONTEXT -- EXPERIMENTAL
BUILDING -- BUGA WOOD PAVILION -- BUGA FIBRE PAVILION --
EXTERNAL POSITIONS -- INNOVATIVE STRUCTURES -- EXPERIMENTAL
BUILDING -- URBACH TOWER -- EXTERNAL POSITIONS -- LESS WEIGHT
THROUGH MORE FORM -- PROSPECTS FOR RESEARCH AND PRACTICE
-- PROSPECT ACADEMIC RESEARCH: TIMBER CONSTRUCTION --
PROSPECT ACADEMIC RESEARCH: FIBER COMPOSITE CONSTRUCTION --
PROSPECT ARCHITECTURAL PRACTICE -- ANNEX -- PROJECT
PARTICIPANTS ICD/ITKE BUILDINGS -- BIOGRAPHIES -- REFERENCES --
IMAGE CREDITS

Sommario/riassunto

How can the fundamental digital change taking place in design and construction be actively used to bring about cultural change in architecture? By exploring robotic production methods and innovative material developments, Achim Menges and Jan Knippers have succeeded in developing genuine digital building systems that combine architectural elegance with effective construction. The book provides an insight into ten years of joint research at the ICD and ITKE Institutes of Stuttgart University. Taking completed pavilions and buildings as examples, the authors demonstrate the viability of the underlying hypotheses that impressively push the limits of construction. Articles from international experts contribute to the current debate on architecture.

Wie kann die ergebnisoffene Untersuchung von Planungs- und Fertigungsmethoden zu neuen Konstruktionsformen und architektonischen Ausdrucksmöglichkeiten führen? Seit 2010 haben die Institute ICD und ITKE der Universität Stuttgart 14 gemeinsame experimentelle Bauten realisiert. Bislang gab es wissenschaftliche Veröffentlichungen zu den Einzelprojekten aber keine zusammenhängende Darstellung der übergeordneten Entwicklungslinien.
