

1. Record Nr.	UNINA9910466648803321
Autore	Hebel Dirk E.
Titolo	Cultivated building materials : industrialized natural resources for architecture and construction / / Dirk E. Hebel, Felix Heisel
Pubbl/distr/stampa	Basel : , : Birkhauser, , [2017] ©2017
ISBN	3-0356-0882-2 3-0356-0892-X
Descrizione fisica	1 online resource (184 pages) : illustrations
Disciplina	624.1/8
Soggetti	Reinforced concrete Composite-reinforced concrete Building materials Natural resources Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and indexes.
Nota di contenuto	Frontmatter -- Contents -- Introduction: Cultivated Building Materials -- Production Back to The City -- The Ape of Materials -- The Industrialization of Timber – A Case Study -- Standardization of a Natural Resource -- Introduction -- Constructing with Engineered Bamboo -- Upscaling The Bamboo Industry -- The Ecological Impact of Industrially Cultivated Bamboo -- Engineered Bamboo Products – A Sustainable Choice? -- Soil-Dependent Products. Agriculture -- Wood Foam -- Biopolymers: Cement Replacement -- Biopolymers and Biocomposites Based on Agricultural Residues -- Lignin-based Carbon Fibres -- Nutrient-Dependent, Soil-Independent Products. Biotechnology -- Fungal Mycelium Bio-Materials -- Limestone-producing Bacteria: Self-healing Concrete -- Microbially Induced Calcium Carbonate: Multilayer/Multimaterial Coatings on Non-conductive Materials -- Bio-Inspired Products. Biomimicry -- Replicating Natural Design Strategies In Bio-Inspired Composites -- Living Architecture (Liar): Metabolically Engineered Building Units -- About the Authors and Contributors -- Acknowledgments --

Sommario/riassunto

NEXT GENERATION BUILDING MATERIALS The 21st century faces a radical change in how we produce construction materials – a shift towards cultivating, breeding, raising, farming, or growing future resources. This book presents innovative industrialized production methods for cultivated building materials, like cement grown by bacteria, bricks made of mushroom mycelium, or bamboo fibers as reinforcement for concrete. Spanning from scientific research to product development and architectural application, this book builds a bridge between the academic and the professional world of architecture. The book describes the challenges, strategies, and goals in the first part, followed by a second part on bamboo, A cultivated building material and a number of examples in the third part which form the bridge from cultivated materials to building products.

baumaterialien einer neuen generation Die Produktion von Baumaterialien verändert sich im 21. Jahrhundert radikal: Künftige Ressourcen werden vermehrt, angebaut oder gezüchtet – sie werden organisch erzeugt. Dieses Buch stellt innovative industrialisierte Produktionsmethoden für die organische Erzeugung von Baumaterialien vor. Dazu gehören zum Beispiel durch Bakterien erzeugter Zement, aus Pilzzellen gewonnene Ziegel oder die Verwendung von Bambusfasern für die Betonarmierung. Die Darstellung schlägt einen Bogen von der wissenschaftlichen Forschung über die Produktentwicklung bis hin zu Anwendungen in Architektur und Bauwesen. Sie schlägt eine Brücke vom akademischen zum praktischen Bereich des Entwerfens und Bauen. Der erste Teil beschreibt Herausforderungen, Strategien und Ziele, gefolgt von einem zweiten Teil über Bambus als einem organisch erzeugten Baumaterial und einem dritten Teil mit zahlreichen Beispielen für Entwicklungen von Bauprodukten aus organisch erzeugten Baumerialien.

2. Record Nr.	UNINA9910148564403321
Autore	Brown Laaren
Titolo	Polar animals / / Laaren Brown
Pubbl/distr/stampa	New York, NY : , : Liberty Street, an imprint of Time Inc. Books, , 2015
ISBN	1-61893-492-9
Edizione	[First edition.]
Descrizione fisica	1 online resource (80 pages) : illustrations
Collana	Animal bites
Disciplina	591.70911/3
Soggetti	Animals - Polar regions Animals JUVENILE NONFICTION / Science & Nature / Environmental Science & Ecosystems JUVENILE NONFICTION / Animals / Bears Animals - Polar Regions Electronic books. Polar regions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	At head of title: Animal Planet.
Nota di bibliografia	Includes bibliographical references (page 75) and index.
Sommario/riassunto	Describes the physical characteristics, behavior, and habitat of polar animals, including king penguins, narwhals, and reindeer.--