

**FABRICATE:
NEGOTIATING DESIGN & MAKING**

**Fabio Gramazio, Matthias Kohler, Silke Langenberg (eds.)
gta Verlag**

MATERIAL EXUBERANCE

CHALLENGING THE THRESHOLDS

- 86—91 VIRGINIA SAN FRATELLO AND RONALD RAEL
IN CONVERSATION WITH NERI OXMAN
- 92—97 PRINTING ARCHITECTURE:
CASTLES MADE OF SAND
Benjamin Dillenburger, Michael Hansmeyer
- 98—103 BLOOM
Jose Sanchez, Alisa Andrasek
- 104—111 PLASTIC-CAST CONCRETE:
FABRICATION AS APPLIED RESEARCH
Kenneth Tracy, Brad Bell, Christine Yogiama,
Lander Tessmer, Kevin McClellan, Andrew Vrana,
Erik Verboon
- 112—119 BUILDING BYTES:
3D-PRINTED BRICKS
Brian Peters
- 120—127 THE MOBILE ORCHARD:
GROWING ERGONOMIC, EDIBLE, AERIAL
DATASCAPES
Alex Haw
- 128—135 SEARCH FOR A ROOTED AESTHETIC:
STUDY IN SPIN-VALENCE
Emily Baker
- 136—145 THE RISE:
BUILDING WITH FIBROUS SYSTEMS
Martin Tamke, David Stasiuk, Mette Ramsgaard
Thomsen
- 146—153 LA VOÛTE DE LEFFÈRE:
A VARIABLE-VOLUME COMPRESSION-ONLY
VAULT
Brandon Clifford, Wes McGee
- 12—21 MARIO CARPO
IN CONVERSATION WITH MATTHIAS KOHLER
- 22—29 RIBBED TILE VAULTING:
INNOVATION THROUGH TWO DESIGN-BUILD
WORKSHOPS
Philippe Block, Melonie Bayl-Smith, Tim Schork,
- 30—35 WHO'S AFRAID OF FABRICATION?
WHY TEACH DIGITAL FABRICATION NOW?
Brennan Buck
- 36—43 TOPO-FACADE: ENVELOPE DESIGN AND
FABRICATION PLANNING USING TOPOLOGICAL
MESH REPRESENTATIONS
Gustav Fagerström, Erik Verboon, Robert Aish
- 44—51 BALANCING COMPLEXITY AND SIMPLICITY
Jonathan Rabagliati, Clemens Huber, Dieter Linke
- 52—59 BRIDGING THE GAP FROM CAD TO CAM:
CONCEPTS, CAVEATS AND A NEW GRASSHOPPER
PLUG-IN
Hanno Stehling, Fabian Scheuren, Jean Roulier
- 60—67 BUILDING SIMPLEXITY:
GOLDEN MOON, 2012 MID-AUTUMN FESTIVAL
LANTERN WONDERLAND
Kristof Crolla
- 68—75 THE LEADENHALL BUILDING:
DESIGN FOR FABRICATION-DIGITAL WORKFLOW
AND DOWNSTREAM FABRICATION SYSTEM
Dirk Krolkowski, Damian Eley
- 76—83 FABRICATING ARCHITECTURAL VOLUME:
STEREOTOMIC INVESTIGATIONS IN ROBOTIC
CRAFT
Jelle Feringa, Asbjørn Søndergaard
- 8—9 FOREWORD BY THE INITIATORS OF
THE FABRICATE CONFERENCE SERIES
Bob Shell, Ruairi Glynn
- 6—7 FOREWORD BY THE EDITORS
Fabio Gramazio, Matthias Kohler, Silke Langenberg

FORMING MACHINES

156–165

ACHIM MENGES
IN CONVERSATION WITH PHILIP BEESLEY

166–173

PERFORMING:
EXPLORING INCREMENTAL SHEET METAL
FORMING METHODS FOR GENERATING
LOW-COST, HIGHLY CUSTOMISED COMPONENTS
Ammar Kalo, Michael Jake Newsum, Wes McGee

174–181

(FR)AGILE MATERIALITY:
APPROXIMATING UNCERTAIN FABRICATION
PROCESSES
Kadri Tamre, Marjan Colletti, Georg Grasser,
Allison Weiler

182–191

[R]EVOLVING BRICK:
GEOMETRY AND PERFORMANCE INNOVATION
IN CERAMIC BUILDING SYSTEMS THROUGH
DESIGN ROBOTICS
Stefano Andreani, Martin Bechthold

192–197

ANTI-GRAVITY ADDITIVE MANUFACTURING
Joris Laarman, Saša Jokić, Petr Novikov,
Luis E. Fraguada, Areti Markopoulou

198–205

THE DESIGN OF A LUNAR OUTPOST:
3D PRINTING REGOLITH AS A CONSTRUCTION
TECHNIQUE FOR ENVIRONMENTAL SHIELDING
ON THE MOON
Xavier De Kestelier, Enrico Dini, Giovanni Cesaretti,
Valentina Colla, Laurent Pambaguian

206–215

FABbots:
RESEARCH IN ADDITIVE MANUFACTURING
FOR ARCHITECTURE
Marta Malé-Alemany, Jordi Portell

216–223

AUGMENTED MATERIALITY:
MODELLING WITH MATERIAL INDETERMINACY
Ryan Luke Johns

224–231

MESH-MOULD:
ROBOTICALLY FABRICATED SPATIAL MESHES
AS CONCRETE FORMWORK AND REINFORCEMENT
Norman Hack, Willi Viktor Lauer, Fabio Gramazio,
Matthias Kohler, Silke Langenberg

LIVING ASSEMBLIES

234–241

NEIL GERSHENFELD
IN CONVERSATION WITH MARK BURRY

242–247

PERIPATETIC FABRICATION:
ARCHITECTURE, CO-ROBOTICS AND MACHINE
VISION
Mike Silver

248–255

SILK PAVILION:
A CASE STUDY IN FIBRE-BASED DIGITAL
FABRICATION
Neri Oxman, Jared Laucks, Markus Kayser,
Jorge Duro-Royo, Carlos Gonzales Uribe

256–265

MULTI-SCALAR SHAPE CHANGE IN
PNEUMATICALLY STEERED TENSEGRITIES:
A CROSS-DISCIPLINARY INTEREST IN USING
MATERIAL-SCALE MECHANISMS FOR DRIVING
SPATIAL TRANSFORMATIONS
Phil Ayres, Kasper Stoy, David Stasiuk, Hollie Gibbons

266–271

BUILDING WITH FLYING ROBOTS
Ammar Mirjan, Fabio Gramazio, Matthias Kohler

272–279

HYGROSKIN:
METEOROSENSITIVE PAVILION
Oliver David Krieg, Zachary Christian, David Correa,
Achim Menges, Steffen Reichert, Katja Rinderspacher,
Tobias Schwinn

280–287

FABRICATING BEHAVIOUR:
A PROBLEM, A SOLUTION, A PROTOTYPE
AND A PROPOSAL
William Bondin, Ruairi Glynn

288–295

FROZEN RELIC:
DIGITALLY REFACTURED ARCTIC ICE FLOES
Matthew Shaw, William Trossell

296–303

FLUID CRYSTALLISATION:
HIERARCHICAL SELF-ORGANISATION
Skylar Tibbits

306–315

AUTHORS' BIOGRAPHIES