ESSAYS

7 Introduction *Nikola Doll* 13

Image-Active Design Forms of Animals and Humans Horst Bredekamp

23

Immateriality of Materials Wolfgang Schäffner

33

History of Artificiality—Intersections of Image, Knowledge, and Design *Matthias Bruhn*

45

Ecologies of Making.
On Tim Ingold's General-Ecological
Critique of Worldmaking
Erich Hörl

55

Vital Materialism and New Realism *Markus Gabriel*

63

What are the Boundaries of Problems?
A Dialog by *Jörg Petruschat* and *Carola Zwick*

71

"Designerly Ways of Knowing."
The Impertinent Promise
of an Epistemic Culture of Design
Claudia Mareis

FORM PROCESSES

81

Evolution and the Design Process: The Myth of Optimization Katharina Lee Chichester

89

The Botanization of Art Sabine Thümmler

95

Nature, Knowledge, Design. Moritz Meurer's Applied Botany as Research in Design Angela Bösl

103

Growth on Stone.
On Paul Klee's Mineral Collection
Claudia Blümle

111

Evolution as Designer? Gerhard Scholtz

117

Form as a Given/Giving Form Patricia Ribault

122 Catalog



ACTIVE MATTER

161

Active Matter Systems Sebastian Vehlken

167

Inspired Mechanics.
Active Matter as Machine and Structure
Michael Friedman and
Karin Krauthausen

173

The Bioinspired Design of Materials

Peter Fratzl

179

Self-Forming Bodies— Biological Coding of Social Difference *Kerstin Palm*

185

Self-Moved: Shelter in Nature and Culture. A Dialog between *Sandra Schramke* and *Thomas Stach*

193

Grow | Degrow.
Becoming Materials between
Excess and Calculation
Carolin Höfler

201

Soft Technologies.
Active Textiles, Adaptive Surfaces, and Tangible Interfaces *Zane Berzina*

208 Catalog

IMAGE OPERATIONS

271

The Shape of the Gesture Claus Pias

281

Digital Image Archive.
The Archiving and Coding of Emotions
Carl Martin Grewe and
Lisa Schreiber

287

Gestalt vs. Cybernetics Margarete Pratschke

295

"Look to Kill."
On the Precarious Relationship between Transparency and Opacity in Helmet Displays Moritz Queisner

301

In the Grid—Bodies between Image and Action *Kathrin Friedrich*

307

Big Data and the Technical Images of Scenario Modeling Reinhard Wendler

316 Catalog

PROCESS DESIGN

351

Linear/Complex, Max Winter Fiction, Fabian Scholtz Questions, Julia Blumenthal Decision, Julia von Mende Experiment, Henrike Rabe Chance, Anika Schultz Border Crossings, Michael Pogorzhelskiy Blurriness, Sabine Hansmann Tools, Anouk-Aimée Hoffmeister Model Image, Fabian O. Scholz Integration, Rebekka Lauer Bricolage and Italian Lemon Ice, Jan Wind Empty Space, Katharina Walter Failure, Anne Schmidt Obstacles, Peter Koval Meticulousness, Julia Meer

APPENDIX

362

Works in the Exhibition Selected Literature Lenders Picture Credits Credits