

7  
Introduction  
*Nikola Doll*

## ESSAYS

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*  
*Pogorzelskiy*  
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