Contents

Part I  Theories for Cultural DNA Research
1  From Human Inspired Design to Human Based Design ............... 3  
   Mathew Schwartz
2  A Short Exploratory Essay on the Term ‘Cultural DNA’ from  
   the Perspectives of Physical and Virtual Architecture .......... 15  
   Deedee Aram Min and Ji-Hyun Lee
3  Architectural Conservation Based on Its Cultural DNA .......... 27  
   Shang-chia Chiou

Part II  Morphological Analysis at Architectural Scale
4  Finding Housing Genotypes by Graph Theory:  
   An Investigation into Malay Houses ............................. 37  
   Kyung Wook Seo
5  Frieze Symmetry as an Underlying Principle of Housing  
   Elevation Designs .............................................. 49  
   Jin-Ho Park
6  Unpacking the Cultural DNA of Traditional Chinese Private  
   Gardens Through Mathematical Measurement and Parametric  
   Design ........................................................... 59  
   Ning Gu, Rongrong Yu and Michael Ostwald

Part III  Morphological Analysis at Urban Scale
7  Morphogenetic Habitation Group Formation  
   and View Parameter ............................................. 79  
   Jong-Jin Park
8 From Open Plan to Public Space: ‘Seine-Arche’ Project and Urban Morphological Evolution in France 1960–2020 .......... 91
Jérôme Treuttel

9 Imagining the Paths of Cities: A Case of Korean City .......... 105
GwangYa Han

10 A Rule-Based Generative Analysis Approach for Urban Planning ................................................ 125
Rudi Stouffs and Patrick Janssen

Part IV Analysis of Other Cultural Artifacts

11 Player Segmentation Strategies Based on the Types of Self-recognition in Online Game World ................. 139
Young Yim Doh

12 Style Synthesis Based on Strategic Styling Decision .......... 149
Kyung Hoon Hyun and Ji-Hyun Lee

13 Phylogenetic Analysis of Korean Traditional Rhythm ............ 157
Hyungjoong Kim and Ji-Hyun Lee

Part V Tools

14 Implementing Shape Grammars for Designers .................. 165
Andrew I-kang Li

15 Designing for Culture: The Development of a Cultural Design Tool for Service Design ..................... 177
Yu-Hsiu Hung and Wei-Ting Lee

Jaeyoung Shin, Jinhua Huang and Jin-Kook Lee

17 The Grammar Lens: How Spatial Grammar Channels Interface Design ................................................ 199
Robert Woodbury

18 Answering Questions with Questions: A Personal Take on Gödel’s Incompleteness Theorem as It Relates to Architecture and Design ............................................ 227
Andrzej Zarzycki
Morphological Analysis of Cultural DNA
Tools for Decoding Culture-Embedded Forms
Lee, J.-H. (Ed.)
2017, VIII, 240 p. 107 illus., 59 illus. in color., Hardcover
ISBN: 978-981-10-2328-6