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