## Contents

Ack	cnowledgments	xi
Intr	oduction  Nina Levent and Alvaro Pascual-Leone	xiii
PA	RT I: MUSEUMS AND TOUCH	
1	Please DO Touch the Exhibits! Interactions between Visual Imagery and Haptic Perception  Simon Lacey and K. Sathian	3
2	"First Hand," not "First Eye" Knowledge: Bodily Experience in Museums Francesca Bacci and Francesco Pavani	17
3	Art Making as Multisensory Engagement: Case Studies from The Museum of Modern Art  Carrie McGee and Francesca Rosenberg	29
4	Multisensory Engagement with Real Nature Relevant to Real Life Molly Steinwald, Melissa A. Harding, and Richard V. Piacentini	45
5	Touch and Narrative in Art and History Museums  Nina Levent and D. Lynn McRainey	61

## PART II: MUSEUMS AND SOUND

6	A Brain Guide to Sound Galleries Stephen R. Arnott and Claude Alain	85
7	Ephemeral, Immersive, Invasive: Sound as Curatorial Theme, 1966–2013  Seth Cluett	109
8	Soundwalking the Museum: A Sonic Journey through the Visual Display Salomé Voegelin	119
9	The Role of Sensory and Motor Systems in Art Appreciation and Implications for Exhibit Design  A. Casile and L. F. Ticini	131
PAI	RT III: SMELL AND TASTE IN MUSEUMS	
10	The Forgotten Sense: Using Olfaction in a Museum Context: A Neuroscience Perspective Richard J. Stevenson	151
11	The Scented Museum  Andreas Keller	167
12	The Museum as Smellscape  Jim Drobnick	177
13	Taste-full Museums: Educating the Senses One Plate at a Time Irina D. Mihalache	197
PAI	RT IV: MUSEUM ARCHITECTURE AND THE SENSES	
14	Navigating the Museum Fiona Zisch, Stephen Gage, and Hugo Spiers	215
15	Museum as an Embodied Experience  Juhani Pallasmaa	239

16	Architectural Design for Living Artifacts  Joy Monice Malnar and Frank Vodvarka	251
PA	RT V: FUTURE MUSEUMS	
17	Multisensory Memories: How Richer Experiences Facilitate Remembering  Jamie Ward	273
18	The Secret of Aesthetics Lies in the Conjugation of the Senses: Reimagining the Museum as a Sensory Gymnasium  David Howes	285
19	Multisensory Mental Simulation and Aesthetic Perception Salvatore Maria Aglioti, Ilaria Bufalari, and Matteo Candidi	301
20	Islands of Stimulation: Perspectives on the Museum Experience, Present and Future  Rebecca McGinnis	319
21	The Future Landscape of 3D in Museums Samantha Sportun	331
22	Technology, Senses, and the Future of Museums. A Conversation with Nina Levent, Heather Knight, Sebastian Chan, and Rafael Lozano Hammer	341
	nclusion: Multisensory Art Museums and the Experience nterconnection.  Elisabeth Axel and Kaywin Feldman in conversation with artists and curators	351
Inde	ex	361
Abo	About the Contributors	