

Cambridge University Press
978-1-108-47798-7 — Architecture and the Senses in the Italian Renaissance
David Karmon
Frontmatter
[More Information](#)

ARCHITECTURE AND THE SENSES IN THE ITALIAN RENAISSANCE

This is the first study of Renaissance architecture as an immersive, multi-sensory experience that combines historical analysis with the evidence of first-hand accounts. Questioning the universalizing claims of contemporary architectural phenomenologists, David Karmon emphasizes the infinite variety of meanings produced through human interactions with the built environment. His book draws upon the close study of literary and visual sources to prove that early modern audiences paid sustained attention to the multisensory experience of the buildings and cities in which they lived. Through reconstructing the Renaissance understanding of the senses, we can better gauge how constant interaction with the built environment shaped daily practices and contributed to new forms of understanding. *Architecture and the Senses in the Italian Renaissance* offers a stimulating new approach to the study of Renaissance architecture and urbanism as a kind of “experiential trigger” that shaped ways of both thinking and being in the world.

David Karmon is Professor of the History of Art and Architecture in the Department of Visual Arts and head of the Architectural Studies program at Holy Cross. The author of *The Ruin of the Eternal City* (2011), he is a Fellow of the American Academy in Rome, and as of 2021, Chief Editor of the *Journal of the Society of Architectural Historians*.

Cambridge University Press
978-1-108-47798-7 — Architecture and the Senses in the Italian Renaissance
David Karmon
Frontmatter
[More Information](#)

ARCHITECTURE AND THE SENSES IN THE ITALIAN RENAISSANCE

THE VARIETIES OF ARCHITECTURAL EXPERIENCE

DAVID KARMON



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
978-1-108-47798-7 — Architecture and the Senses in the Italian Renaissance
David Karmon
Frontmatter
[More Information](#)

CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom
One Liberty Plaza, 20th Floor, New York, NY 10006, USA
477 Williamstown Road, Port Melbourne, VIC 3207, Australia
314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India
79 Anson Road, #06–04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

www.cambridge.org
Information on this title: www.cambridge.org/9781108477987
DOI: [10.1017/9781108775465](https://doi.org/10.1017/9781108775465)

© Cambridge University Press 2021

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2021

A catalogue record for this publication is available from the British Library.

Library of Congress Cataloging-in-Publication Data

NAMES: Karmon, David E., author.

TITLE: Architecture and the senses in the Italian Renaissance : varieties of experience in the built environment / David Karmon.

DESCRIPTION: New York : Cambridge University Press, 2021. | Includes bibliographical references and index.

IDENTIFIERS: LCCN 2020025555 (print) | LCCN 2020025556 (ebook) | ISBN 9781108477987 (hardback) | ISBN 9781108745383 (paperback) | ISBN 9781108775465 (epub)

SUBJECTS: LCSH: Senses and sensation in architecture. | Architecture, Renaissance—Italy—Psychological aspects.

CLASSIFICATION: LCC NA2543.S47 K37 2021 (print) | LCC NA2543.S47 (ebook) | DDC 720.945/09024—dc23

LC record available at <https://lccn.loc.gov/2020025555>

LC ebook record available at <https://lccn.loc.gov/2020025556>

ISBN 978-1-108-47798-7 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.



Ad Anna e Wyn, sempre pronti per l'avventura

TABLE OF CONTENTS

<i>List of Illustrations</i>	<i>page ix</i>
<i>Preface</i>	xiii
<i>Acknowledgments</i>	xxix
1 A SENSE OF RENAISSANCE ARCHITECTURE 1	
The Pluralism of William James	2
New Directions in Scholarship	6
Renaissance Architecture and the Great Divide	10
Architectural Phenomenology	15
The Architectural Historian and the Senses	18
A Map to the Book	25
2 ARCHITECTURE AND THE IMAGINATION 29	
The Renaissance Understanding of the Senses	33
Interacting with Environments	37
Renaissance Reverie	43
Architectural Reverie	45
Material Reverie	49
The Hypnerotomachia Poliphili	52
La Petite Maison	57
3 MOVEMENT IN THE BUILT ENVIRONMENT 63	
“Static and Unchangeable Form”	66
Gender, Movement, and the City	78
Walking on Chopines	79
The Pleasures of the Paved Surface	84
City Walls and Gates	92

viii TABLE OF CONTENTS

Neighborhood Boundaries	94
On Foot in Renaissance Rome	99
4 THE BUILDING OF DEVOTION	106
The Mystery of Smell	108
Intimate Olfactory Patterns	112
Scenting Three Chapels	115
Proximate to Distant Sensing	122
Sensory Ethics	125
Scents of the Imagination	127
The Ghetto and the Senses	129
5 SENSATIONS OF HEALTH AND ILLNESS	140
Architecture and the Medical Treatise	141
Sensing in Public and in Private	146
Florence: Santa Maria Nuova	151
Milan: Ospedale Maggiore	155
Ottoman Hospitals and the Senses	165
Sensory Refreshment and the Garden	167
Malta: Sacra Infermeria	171
<i>Epilogue</i>	177
<i>Bibliography</i>	189
<i>Notes</i>	205
<i>Index</i>	223

ILLUSTRATIONS

1	Visiting the Canopus, Hadrian's Villa in Tivoli.	<i>page</i> xiv
2	Lunch at the Hotel Sibylla.	xiv
3	Overlooking the Aniene waterfall.	xv
4	Milan Cathedral, façade begun 1590.	xvii
5	Milan Cathedral, begun 1386.	xviii
6	Milan Cathedral, buttresses and roof terraces.	xix
7	<i>The Architecture of Michelangelo</i> (first edition, 1961), and <i>Palladio</i> (first edition, 1967).	xx
8	Michelangelo Buonarroti, Library at San Lorenzo, Florence, ca 1559.	xxii
9	Andrea Palladio, San Giorgio Maggiore, Venice, begun 1566.	xxiv
10	Adinatha temple at Ranakpur, Rajasthan, ca 1452.	xxvii

CHAPTER 1: A SENSE OF RENAISSANCE ARCHITECTURE

11	Sebastiano Serlio, Tempietto at San Pietro in Montorio by Bramante, from <i>Sebastiani Serlii Bononiensis De Architectura libri quinque</i> (Five Books on Architecture by Sebastiano Serlio), published by Francesco de Franceschi Senese and Johann Criegher (Venice, 1569).	3
12	Andrea Palladio, Villa Rotonda, <i>I quattro libri dell'architettura</i> (Vicenza, 1570).	13
13	Albrecht Dürer, woodcut of <i>A Draughtsman Making a Perspective Drawing of a Woman</i> , 1527–38.	14
14	Michelangelo Buonarroti, façade of Chapel of Saints Cosmas and Damian for Leo X, ca 1513.	15
15	Approach to reconstructed Wampanoag house at Plimoth Plantation.	19
16	Reconstructed Wampanoag house interior, Plimoth Plantation.	19
17	Approach to reconstructed seventeenth-century English village, Plimoth Plantation.	20
18	Main street, seventeenth-century English village, Plimoth Plantation.	20
19	Visiting the <i>Mayflower II</i> .	21
20	Interacting with role players on the <i>Mayflower II</i> .	21
21	Galeazzo Alessi, courtyard of Santa Maria presso San Celso, Milan, ca 1572.	24
22	Gardens on the Pincio, Rome.	26

CHAPTER 2: ARCHITECTURE AND THE IMAGINATION

23	Samuel Prout, <i>Interior of St. Mark's Basilica</i> , ca 1830 (1914).	30
24	Louis-Jean Desprez, <i>Interior of St. Peter's Basilica Illuminated</i> , ca 1776–84.	32
25	The internal senses according to Avicenna, ca 1310.	35
26	René Descartes, Vision and external stimuli, <i>Tractatus de Homine</i> , (Amsterdam, 1677).	38
27	Milan Cathedral, façade sculpture, begun 1590.	40
28	Mausoleum of Santa Constanza, Rome, fourth century CE.	42
29	Antonello da Messina, <i>St Jerome in His Study</i> , ca 1475.	45
30	Stair of François I at Château Royal de Blois, begun 1515.	48
31	Stair of François I at Château Royal de Blois, begun 1515.	48
32	Monumental stair of François I at Château Royal de Blois, begun 1515.	49
33	Donato Bramante, rustication at Palazzo dei Tribunali, Rome, ca 1505.	51
34	Bathing pavilion, woodcut attributed to Jean Goujon, from Francesco Colonna, <i>Hypnerotomachie, ou, Discours du songe de Poliphile</i> (Paris: Kerver, 1546).	54
35	Bathing pavilion, woodcut attributed to Jean Goujon, from Francesco Colonna, <i>Hypnerotomachie, ou, Discours du songe de Poliphile</i> (Paris: Kerver, 1546).	55
36	Interior of National Archives Building, former Hôtel de Soubise, oval room of the princess (<i>Salon de la princesse</i>), Paris, 1738–40.	58

CHAPTER 3: MOVEMENT IN THE BUILT ENVIRONMENT

37	Domenico Ghirlandaio and workshop, <i>Birth of the Baptist</i> , Tornabuoni Chapel, Florence, ca 1491.	64
38	Filippo Brunelleschi, San Lorenzo, view of interior toward altar, Florence, begun 1421.	70
39	Donato Bramante, detail of Santa Maria presso San Satiro, Milan, ca 1482.	72
40	Donato Bramante, Tempietto, Rome, 1502.	73
41	Ascent to the Tempietto.	74
42	Sun and shade at the Tempietto.	75
43	Behind the Tempietto.	76
44	Leaving the Tempietto.	77
45	Venetian courtesan on chopines, ca 1615.	81
46	Acqua alta at Piazza San Marco, Venice.	86
47	Hampton Court Maze, England, planted ca 1689.	88
48	Courtyard at Elmina Castle (São Jorge da Mina), Ghana, begun 1482.	91
49	Sixteenth-century wooden model of Munich showing city gates and walls.	93
50	Deininger Tor, Nördlingen, Germany, rebuilt 1645–9.	95
51	Ambrogio Lorenzetti, <i>Effects of good government in the city and the country</i> (<i>Effetti del buon governo in città e campagna</i>), Palazzo Pubblico, Siena, 1338–9.	96

LIST OF ILLUSTRATIONS

xi

52	Ambrogio Lorenzetti, detail of <i>Effects of good government in the city and the country</i> (<i>Effetti del buon governo in città e campagna</i>), Palazzo Pubblico, Siena, 1338–9.	97
53	Donato Bramante, Cortile del Belvedere, Rome, begun 1505.	102
54	Leonardo Bufalini, detail of map of Rome identifying street as “Via Tabernola” between the Lateran and Santa Maria Maggiore, Rome, 1551.	103
55	Arch of Gallienus, Rome, begun first century CE.	104

CHAPTER 4: THE BUILDING OF DEVOTION

56	Early printed view of Sacro Monte at Varallo, from Francesco Sesalli, <i>Descrittione del Sacro Monte di Varallo di Val di Sesia</i> (Novara, 1583).	109
57	The Sepulchre of Christ at Varallo, inscription dated 1491.	110
58	Scala Santa at Varallo.	112
59	Piazza dei Tribunali at Varallo.	113
60	Detail of Three Magi in Nazareth complex at Varallo.	114
61	Ascent to Calvary at Varallo.	116
62	Deposition from the Cross at Varallo.	117
63	Old and New Testament inscriptions, Annunciation Chapel at Varallo.	119
64	Inscribed stone lintel over entry to the Sepulchre of Christ at Varallo.	121
65	Decorative grilles and kneelers at Varallo.	123
66	View through grille of the suffering of Christ at Varallo.	123
67	Central piazza and fountain at Varallo.	127
68	Giovanni Merlo, detail of Venice Ghetto, <i>True and Accurate Map of the City of Venice</i> (<i>Vero e real disegno della inclita citta di Venetia</i>), 1676.	130
69	Scuola Grande Tedesca, or Great Ashkenazi Synagogue, Venice, begun 1528.	134
70	Scuola Levantina, or Levantine Synagogue, Venice, completed ca 1712.	135
71	Workshop of Giovanni Bellini, <i>The Circumcision</i> , ca 1500.	137

CHAPTER 5: SENSATIONS OF HEALTH AND ILLNESS

72	Philibert de l'Orme, Allegory of the Good Architect, <i>Le Premier Tome de l'Architecture</i> (Paris, 1568).	142
73	Double spiral staircase at Chambord, France, begun 1519.	143
74	Central lightwell of double spiral staircase at Chambord, begun 1519.	143
75	Fuggerei, Augsburg, 1517–23.	149
76	Fuggerei kitchen, Augsburg, 1517–23.	149
77	Reconstruction of early modern latrine, Hampton Court Palace, England, begun 1515.	152
78	Domenico di Bartolo, <i>Anointing of the Sick</i> , Santa Maria della Scala, Siena, 1440–1.	154
79	Filarete, Ospedale Maggiore, in <i>Trattato de architettura</i> , ca 1461–5.	157

80	Interior courtyard (Cortile della Legnaia) at Ospedale Maggiore, begun 1460.	158
81	Interior portico (Cortile della Legnaia) at Ospedale Maggiore, begun 1460.	159
82	Stairs and portico at Ospedale degli Innocenti, begun 1419.	160
83	Façade and portico at Ospedale Maggiore, begun 1460.	161
84	Portico, Ospedale Maggiore, begun 1460.	161
85	Entrance to cruciform wards (stairs removed), Ospedale Maggiore, begun 1460.	162
86	Inscription commemorating Francesco Sforza and Bianca Maria above hospital entrance. Photo: The author	163
87	Ospedale Maggiore, interior of hospital ward, early twentieth century.	164
88	Bayezid II mosque and hospital complex, Edirne, Turkey, built after 1488.	166
89	Jean-Puget La Serre, “L’Odorat,” in <i>Le tombeau des délices et plaisirs du monde</i> (Brussels, 1630).	170
90	Sacra Infermeria, Valletta, Malta, begun 1575.	172
91	Sacra Infermeria, Valletta, Malta, seventeenth-century view of hospital ward.	174

EPILOGUE

92	Jan Van Eyck, <i>Portrait of Giovanni (?) Arnolfini and His Wife</i> , 1434.	178
93	Isaac Cruikshank, <i>Returning from a Rout on a Rainy Night</i> , 1797.	179
94	John Nash, All Souls Church, London, completed 1823.	181
95	John Nash, All Souls Church, London, completed 1823.	182
96	3D Oculus Rift headsets in the Domus Aurea.	186

PREFACE

In writing this book, I found myself reflecting upon a very special experience that I remembered from my final year in Rome as a graduate student. It was late summer, and I was finishing up my dissertation, when my advisor, James Ackerman, informed me that he and his daughter Anne were planning a trip to Italy. My mother and sister were visiting me at the time, so we decided to make a party and visit Hadrian's Villa in Tivoli together. After an adventurous morning getting out of the city, we spent the day wandering around the archaeological site. Ackerman (or Jim, as he liked to be called) was energetic and intrepid as always. It was always exciting to hear his thoughts about architecture, and it was even more exciting to talk about these things not in the abstract but in person, as we visited the buildings on site. As we passed from the bright sunlight into the dusty cool shadows and then back into the sunlight again, I remember him making various observations and comments about Hadrian's Villa in his resonant, measured voice. We climbed up and down the slopes, from the reflecting pool at the Canopus to the remotest end of the villa complex, the quiet Piazza d'Oro, before we finally decided to turn around and make our way back through crumbling ruins and gnarled olive trees. Late in the afternoon, tired but exhilarated, we drove up to Tivoli, where we sat down on the gravel terrace of the Hotel Sibylla, next to the Round Temple, and ordered lunch overlooking the waterfall of the Aniene river. On Ackerman's special recommendation, the meal ended with a special dessert – steaming *petits gâteaux au chocolat* in small white porcelain bowls. The many intellectual and sensory pleasures that we enjoyed that day made it an unforgettable experience, one that will always shape my memory of Tivoli (Figures 1 to 3).

Ackerman, who passed away in 2016 at the age of 97, was one of the most prominent and authoritative American scholars of Italian Renaissance architecture. His books, especially his monographs on such major figures as Michelangelo and Palladio, continue to be valued resources for scholars and students alike, and still feature as essential readings in architectural history courses today. Obviously the present book, with its attention to architecture and the senses, adopts a different approach from the study of architectural



1 Visiting the Canopus, Hadrian's Villa in Tivoli. Photo: The author



2 Lunch at the Hotel Sibylla. Photo: The author



3 Overlooking the Aniene waterfall. Photo: The author

history, focusing on themes of physical sensation and experience that were perhaps never explicitly addressed by Ackerman's writings. Yet I like to think there are still connections between this book and Ackerman's general approach to the history of architecture. In an interview with Ackerman, published in 2012, Cammy Brothers noted that the enduring longevity of Ackerman's publications has to do with the powerful lived experience of the built environment conveyed by his writing: "I don't know how many American art historians are interested in addressing what something feels like, but your writing takes that on. That may be partly why your books have been so widely read, because they do convey the pleasure and feeling of the buildings."¹

Few architectural historians, of the Italian Renaissance or of any other period for that matter, have so successfully transmitted the pleasure and feelings created by the buildings that they study to their audiences. Ackerman's remarkable ability to communicate the richness of experience – as a synthesis that involves both sensory perception and intellectual analysis – has helped several generations, including both scholars and the general public alike, to "make sense" of Renaissance architecture.

With the advent of the so-called sensory turn, scholars have discovered that the study of sensory experience offers an exciting opportunity not only to

explore the practices and beliefs of various societies and cultures at different historical moments, but to better understand how we ourselves interact with the world to acquire knowledge.² If it would be to overstate the case to claim that Ackerman anticipated the sensory turn, his architectural analysis nevertheless drew upon and explored sensory experience in many different ways. A survey of Ackerman's key publications over the course of his long and productive career reveals that while he always paid careful and sustained attention to the complex intellectual problems raised by architectural design, he also paid close attention to architecture as a lived, sensory experience.

ARCHITECTURE HOT AND COLD

Ackerman's very first article, “*Ars Sine Scientia Nihil Est*: The Gothic Theory of Architecture at the Cathedral of Milan,” published in the *Art Bulletin* in 1949, not only reconstructed the complex construction history of Milan Cathedral, but also touched upon the ways that the successful practice of architecture required a synthesis of both intellectual analysis and lived experience (Figures 4–6).

In this article, Ackerman discussed how the fourteenth-century builders of the Milan Cathedral were engaged in a heated debate about whether to resort to art or science, practice or theory, in determining the form and dimensions of their enormous new building project. On one side, the local Milanese master builders argued for the invaluable knowledge that could only be gained by craftsmen working on site. On the other side, architects invited from France and Germany by the cathedral patron, the duke of Milan, challenged the traditional authority of the master builders by insisting that abstract mathematical proportions should provide the basis for the new design, rather than simply relying upon knowledge gained through craft experience. In his analysis of these two different positions, Ackerman questioned a longstanding interpretation of Gothic architecture, traditionally associated with such proponents as the nineteenth-century French architect Eugène Emmanuel Viollet-le-Duc, which emphasized the key role of structural systems in determining the forms of Gothic architecture. As Ackerman showed, the debate between the local and foreign builders demonstrated that a successful architectural design needed to demonstrate both aspects, that is, *scientia*, or knowledge acquired through intellectual study, but also *ars*, or knowledge gained through lived practice and experience: “scientia and ars are the handmaidens of medieval building; each plays a decisive role in the creative process, and it is irrelevant to question which of the two is preeminent . . . [to do so] disrupts a partnership which can function only in a happy union.”³

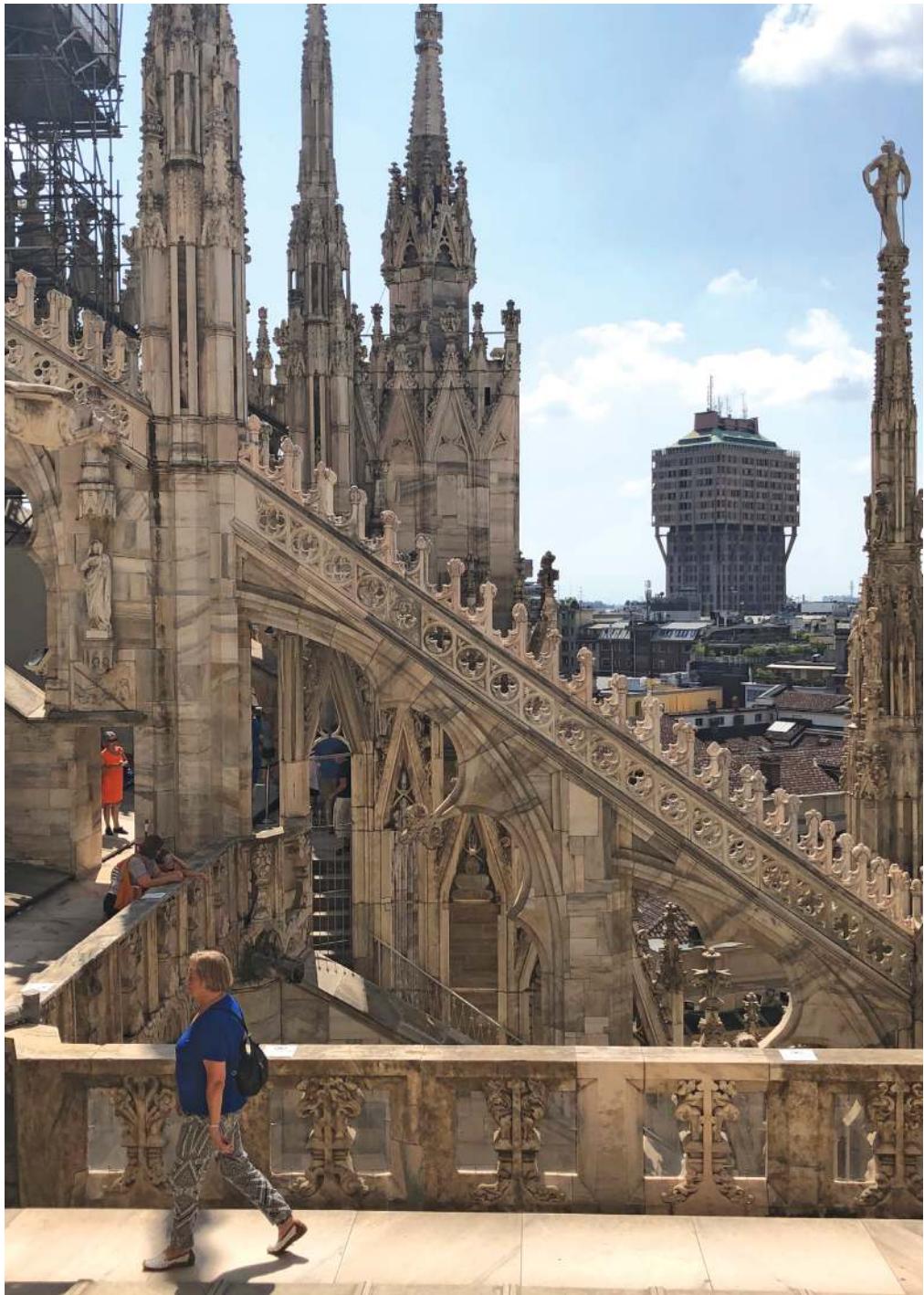
Published in the aftermath of World War II, at a moment when the study of abstract proportional systems enjoyed tremendous favour – evident as much as



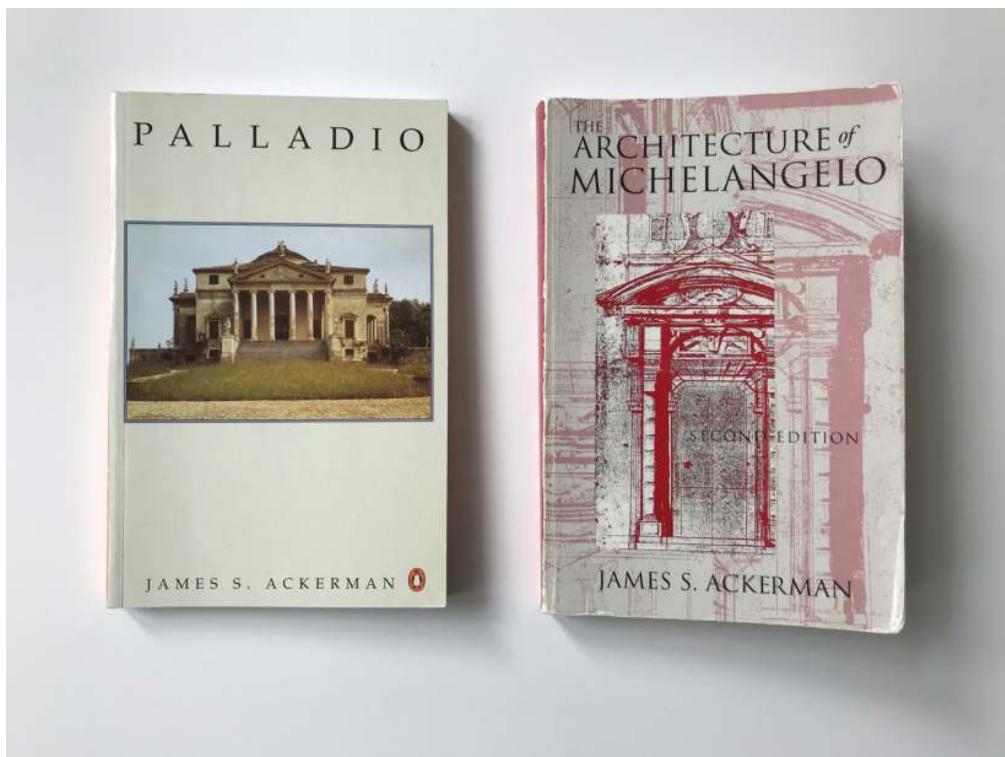
4 Milan Cathedral, façade begun 1590. Photo: The author



5 Milan Cathedral, begun 1386. Photo: The author



6 Milan Cathedral, buttresses and roof terraces. Photo: The author



7 *The Architecture of Michelangelo* (first edition, 1961), and *Palladio* (first edition, 1967).
 Photo: The author

in Le Corbusier’s Modulor designs as in the publication of Rudolf Wittkower’s *Architectural Principles in the Age of Humanism* – it is not surprising that the question surrounding the correct use of proportions that was also addressed by the two opposing sides in “Ars Sine Scientia” caught the attention of many academics. The search for evident underlying truths – and proportions in particular – acquired special urgency in the immediate postwar period, in the effort to come to terms with the unprecedented scale of mindless devastation caused by the war.⁴

But to view Ackerman’s article as merely a study of Gothic proportional systems is to reduce the broader significance of its claims, which instead upheld the central importance of both practice and theory in architectural design. The combination of practice and theory lies at the heart of all architectural discourse, where the work and knowledge of building depends not only upon intellectual study and theory, but also upon knowledge of craft, or the first-hand sensory experience acquired through the living human body.

The lived experience of architecture remained an important undercurrent in two of Ackerman’s subsequent books, *The Architecture of Michelangelo*, the famous two-volume monograph published in 1961, and his more compact but equally influential monograph *Palladio*, in the *Architect and Society* series, published in 1966 (Figure 7).

The Architecture of Michelangelo, now in its second edition, is still a fundamental reference on Michelangelo's understanding of architecture as well as the history of Michelangelo's built and unbuilt designs, a rather astonishing accomplishment given that it has been sixty years since the book first appeared in print. With this book, Ackerman intended to set a new standard for the study of Michelangelo's architecture, basing the study of these buildings upon a reliable, academic, practical footing. To this end, his first chapter, "Michelangelo's 'Theory' of Architecture," offered a succinct analysis and clarification of Michelangelo's approach to architectural design, summarizing the scattered evidence for the artist's ideas about architectural theory and practice.

Yet in addition to conducting a close study of the intellectual foundations of Michelangelo's artistic creativity, Ackerman also expressed particular interest in the lived experience of Michelangelo's works. In the early 1960s, it was a clear priority for Renaissance architectural historians to counter the prevailing modernist critique that spurned historic architecture as merely decorative. For this reason, Ackerman devoted much of his chapter on Michelangelo's Library of San Lorenzo to the analysis of the structural system used in the library and its vestibule, to emphasize the sophisticated knowledge of structural engineering that distinguished this design. But Ackerman was also concerned to highlight the lived experience Michelangelo created for the visitor who moves through the vestibule and the reading room. Thus he complemented his structural analysis with passages that devoted critical attention to the sensory experience of this compelling yet also bizarre series of Renaissance spaces (Figure 8).

To anyone familiar with Michelangelo's sculpture it should be no surprise to find the evocation of compression and frustration in his architecture as well... We may look at the *Moses* without attempting to share or even to analyze his state of mind, but we should have to muster uncommon resistance not to experience some of the conflicts that Michelangelo prepared for us in the vestibule... The vestibule does not engender frustration for its own sake, but rather intensifies the experience of relief as one passes into the reading room.⁵

With these carefully chosen words, registering the sense of "compression and frustration," the "conflicts that Michelangelo prepared for us in the vestibule," and the "relief" that we experience when we enter the calm, ordered space of the reading room, Ackerman demonstrated his keen interest in the complex physical and psychological sensations produced by this architectural environment.

All of Michelangelo's architecture, but the Library of San Lorenzo in particular, resists the conventional art-historical approach that relies upon the formal analysis of visual elements. As Cammy Brothers notes, in the experience



8 Michelangelo Buonarroti, Library at San Lorenzo, Florence, ca 1559.
© Scala / Art Resource, NY

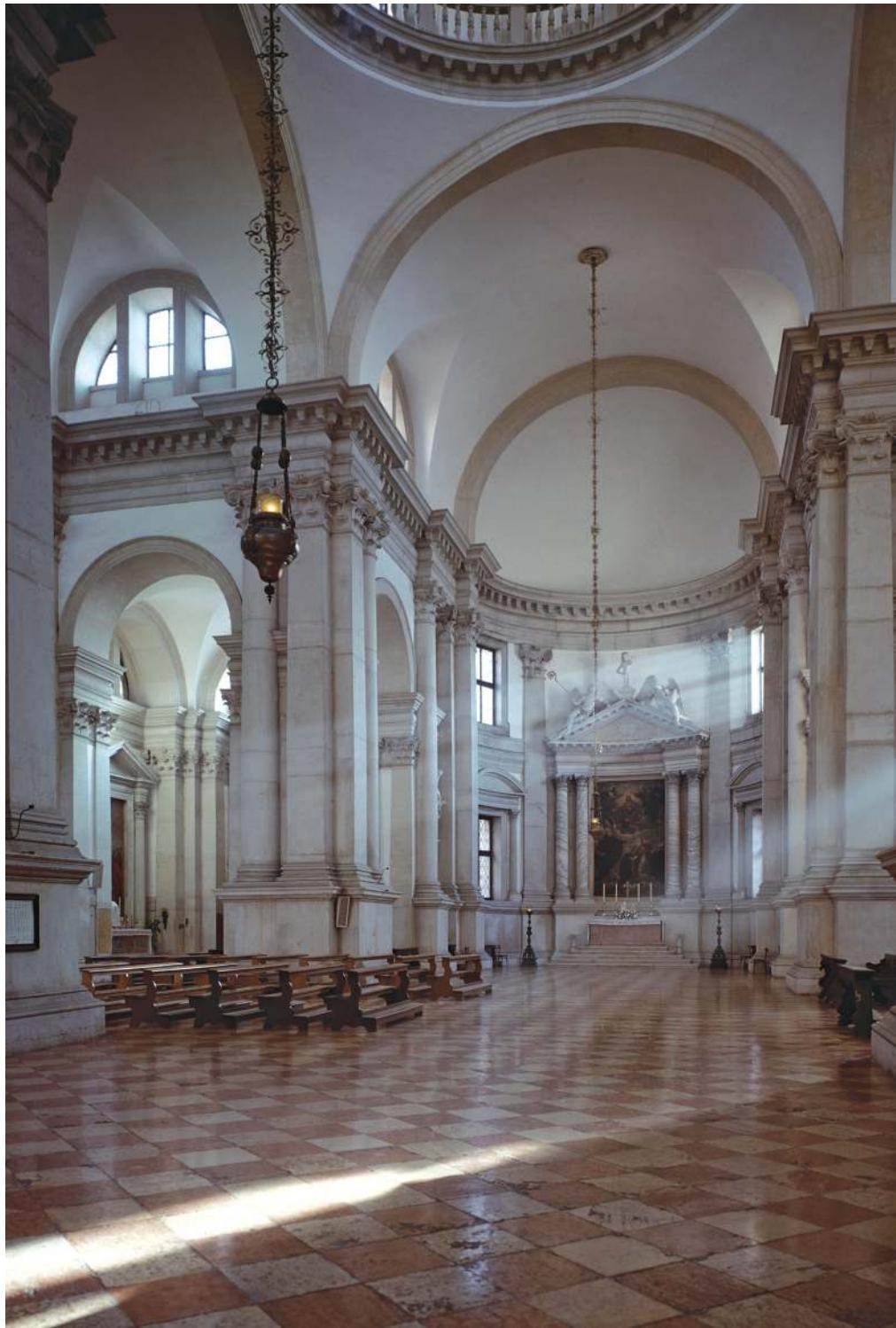
of this space, it is the sensory modes other than vision that come to the fore: “the intense physicality of the experience of the library, both in terms of movement through space and its visceral effect on the body, poses a challenge to descriptive modes rooted exclusively in vision. It is the challenge of the haptic and somatic over the merely optical.”⁶

As Brothers suggests, the tools of visual analysis are insufficient to explain the complex and visceral effects of Michelangelo's unconventional spatial compositions. Ackerman's investigation of the Library suggests that he was aware of this issue, for in addition to his analysis of the structural system of the Library, his study touched upon the more experiential, phenomenological experience created by Michelangelo's design. In composing this chapter, Ackerman bridged both the analytical and the experiential, and once again returned to the principle that successful and powerful architecture was an expression of "scientia and ars . . . in happy union."

Ackerman's monograph on Palladio also demonstrated an interest in connecting sensory responses to critical interpretation. Especially in contrast to the sensual architecture of Michelangelo, we perceive Palladio's designs as more abstract and cerebral. Yet in the final chapter of the book, titled "Principles of Palladio's Architecture," Ackerman challenged this conventional assumption:

Palladio [was not] classical like Raphael or Andrea Sansovino, who accepted a tradition in Western art in which logic and organization—*disegno* in the critical vocabulary of the time—take precedence over the senses. If he is seen as a planner or a maker of harmonies—the Palladio of the *Quattro Libri*—then he does indeed seem to be of that tradition. But another Palladio, unknown to many of the classicists who revered the book but never visited the Veneto, is the magician of light and color, the architectural counterpart of Veronese. The cerebral theoretician evaporates from the consciousness of the visitor who steps through the door of San Giorgio Maggiore . . . Palladio was as sensual, as skilled in visual alchemy as any Venetian painter of his time. He loved modulating light, and introduced unheard-of colors and textures into architecture or used the familiar ones in unheard-of combinations. It is the fusion of the intellectual and the sensuous in Palladio that has made him the favorite of so many generations.⁷

As Ackerman noted, later architects were more often better acquainted with Palladio's buildings through his printed treatise, the *Quattro Libri*, than with his actual buildings. Without the lived experience of Palladio's buildings, it was easy to label Palladio a dry classicist, and to overlook the rich sensory dimensions of his architecture. But, as Ackerman argued, the actual lived experience of a Palladian building such as the basilica of San Giorgio Maggiore revealed something completely different from the graphic record of the *Quattro Libri*. Visiting the building in person, one encountered an astonishing kaleidoscope of multisensory impressions: visual sensations of light and color, tactile experiences created by different materials, surface textures, and ambient temperatures, and complex kinaesthetic effects, where the mobile body experienced and interacted with the space from different locations and vantage points (Figure 9).



9 Andrea Palladio, San Giorgio Maggiore, Venice, begun 1566.
© Angelo Hornak / Alamy Stock Photo

Ackerman's ongoing interest in the medium of film attested to his ongoing concern to find ways to better communicate the sensory experience of architecture and urbanism, outside the conventional framework of the written monograph. To this end, he conceived and narrated two short films, *Looking for Renaissance Rome* (1976), and *Palladio: The Architect and His Influence in America* (1981). Both of these films used the technology of moving images and recorded sound as a means to better communicate the wide range of experiences provided by various buildings and their sites. *Looking for Renaissance Rome*, narrated by Ackerman and Kathleen Weil Garris Brandt, found audible traces of the Renaissance city in the urban environment of the present, from the rumble of the produce carts across the cobblestones of the Campo de' Fiori, to the chance colloquialism used by a Roman pedestrian overheard on the street, to the whistle of craftsmen at work refinishing a pile of chairs, charred cigarette butts dangling from their mouths. As Ackerman noted in the film, "the people who inhabit the city (which was quite different from today) evoke experience more directly than our profession can do."

In an important essay, "Interpretation, Response: Toward a Theory of Art Criticism," published in 1984, Ackerman began by citing a famous passage from Roland Barthes' *Le Plaisir du texte*. Ackerman cited Barthes' affirmation of the need for aesthetic pleasure in the work of critical scholarship: "it is necessary to affirm the enjoyment of the text in opposition to the leveling of literature simply to a question of comprehension." Ackerman declared that the role of pleasure was as important in the study of the visual arts as it was for literary criticism – and equally vulnerable to being stifled by clumsy scholarship:

we [art historians and critics] too have nearly analyzed away the enjoyment that makes our work worthwhile... Barthes did not imply that interpretation should be abandoned in order to allow historians and critics to respond to works of art as entities of value in themselves but rather that the best criticism emerges from an equilibrium of interpretation and response.⁸

Good writing on art and architecture required the deft balancing of response, or the immediate lived experience of the work, against interpretation, or its subsequent investigation and analysis as part of a reflective, intellectual process. Ackerman's affirmation of the essential interconnectedness of interpretation and response in the study of architectural history indicates his perceptive awareness of the need to always balance the work of the senses against the work of the intellect in the analysis and interpretation of buildings and environments.

The final chapter of Ackerman's last book, *Origins, Invention, Revision: Studying the History of Art and Architecture*, published just before his death in

2016, suggested Ackerman's ever-growing awareness of the need for a more sensory, embodied approach to buildings in the study of architectural history. In this essay Ackerman recorded his response to India when he made his first visit to the country in 2006 at the age of 87.⁹ In particular, this chapter focused upon the Adinatha Temple at Ranakpur, a major Jain religious monument in the northwestern Indian state of Rajasthan dating from the fifteenth century, thus contemporary with many major building projects in Renaissance Italy. Ackerman's analysis suggests that he found the Adinatha Temple to be a riveting and fascinating experience precisely because it provoked him into rethinking many of his ideas about Renaissance architecture.

When I talked with Ackerman about his visit a few months after he had returned from India, he said that if he had only undertaken this voyage earlier in his career, he would have written the history of Italian Renaissance architecture in a very different way. As a scholar in a field defined by Ackerman's work, I was utterly astonished to hear this – especially to think that he might want to start over on the magisterial *Architecture of Michelangelo* (I still have his signature in the dog-eared copy I received in grade school from an aunt with a precocious sense of my architectural interests). But it is clear that Ackerman's physical, lived interaction with the very different and yet curiously related building traditions of India left a powerful mark upon him. In my study of architecture and the senses in the Renaissance, I have since grown to better appreciate the significance of his remark (Figure 10).

Delighted with the intense physical and psychological response generated by the Adinatha Temple, in his essay Ackerman drew a comparison between the architectural experience of the temple and the auditory experience of *The Forty Part Motet*, a sound installation by the contemporary artist Janet Cardiff. Ackerman suggested that the superimposed narrative reliefs of the Adinatha Temple recalled the multiple voices of Cardiff's installation, which he described as follows: "forty speakers were set around the periphery of a square hall... when I stood in the center, [the experience] was more profound than any I had experienced in a live concert, since I was enveloped by the music, rather than getting it from one direction."¹⁰

Ackerman suggested that, like Cardiff's sound installation, the Adinatha Temple enveloped the body in a sonic cocoon. Unlike the nave of a Christian church, the Adinatha Temple did not insist upon one primary axis, but instead reflected a less hierarchical concept of spatial organization. With no one primary orientation, but instead offering multiple and different opportunities for movement, the spatial organization of the Adinatha Temple appealed to the sensing body from multiple directions. Ackerman's invocation of the auditory experience of a contemporary sound installation as a way to better interrogate the Adinatha Temple reveals the agility of his thinking about how



10 Adinatha Temple at Ranakpur, Rajasthan, ca 1452.
© Jennie Lewis / Alamy Stock Photo

different sensory modes register in the mind and body, and how these sensory experiences could in turn help to build connections between different fields.

For me, one of the most poignant aspects of Ackerman's Adinatha essay was his evident hesitation about the choice of title. As Ackerman explained, he first intended to title the essay "Architecture Hot and Cold," as a means to highlight the contrast between religious interior space in India and the West. And yet to me, this proposed title "Architecture Hot and Cold" also invoked more than the comparative analysis of two different building traditions. Instead, it also gestured toward the theme of architecture and the senses. For the title "Architecture Hot and Cold" suggested not only a marked contrast in temperature and temperament – perhaps alluding to the surprising contrasts and parallels that one might note in comparing fifteenth-century Italian buildings with those of fifteenth-century Rajasthan – but also the volatile sensations that one experienced while moving through this given environment.¹¹ To me, "Architecture Hot and Cold" registered the intense and also disorienting excitement of encountering Indian architecture, one that offered a new and perhaps surprising vantage point upon the architecture of the Italian Renaissance. Is it possible that the vivid experience of this "hot" Indian architecture was somehow missing in the standard account of Italian Renaissance architecture? Had Renaissance architecture been intellectualized,

flattened, even somehow rendered “cold,” in the interests of scholarly precision?

Ackerman’s provisional title “Architecture Hot and Cold,” with its reference to the opposite ends of the spectrum of sensory experience, also invoked the title of Adrian Stokes’s 1951 book *Smooth and Rough*. Stokes was something of a maverick in the history of architecture – unlike the more conventional scholarly approaches of his contemporaries, Stokes was attracted to the peculiar, unsolicited, yet often overwhelming bodily sensations that are provoked by buildings. Influenced by his work with the psychologist Melanie Klein, Stokes focused in particular on the psychological impact of architecture, and drew prescient attention to the varieties of sensory experience as the means by which architecture penetrates and imprints itself upon the human consciousness and memory. Without question, Ackerman knew Stokes’s work, and thus to him these connections in the choice of title would have been self-evident.

I didn’t have the chance to discuss any of this with Ackerman before he passed away, so all these questions must remain speculative. Ackerman decided not to further develop this evocative parallel: instead, as an homage to the more famous work of E. M. Forster, he decided to title his essay “My Passage to India.” But for me, when I remember Ackerman’s comment that, given the chance, he would have written the history of Italian Renaissance architecture in a very different way, the idea that he still remained ambivalent about this title hinted at a curious uncertainty, perhaps even a note of regret. For me, the very fact that Ackerman chose not to use this title reinforces the lingering impression that somehow in the experience of India, and in his essay on the subject, Ackerman recognized a promising direction for future scholarship that he perhaps did not have the opportunity or the time to pursue.

In work and life, Ackerman’s interest in *ars* and *scientia*, theory and practice, the senses and the intellect, hot and cold, provided an enduring model and an inspiration for future studies, including the one you are reading now.

ACKNOWLEDGMENTS

If the research and writing of a book often feels arduous, the writing of the acknowledgments is a pleasure, as a chance to express my gratitude to the many individuals who have contributed to my thinking since I first began to work on architecture and the senses in the Renaissance.

This project was compelling to me from the beginning. My interest in the sensory experience of architecture – although I would never have been able to articulate this at the time – was what first spurred me to study architecture in high school, in college, and in my graduate work. In the years since, I have been fortunate to be surrounded by many people who have offered sympathy and support as I struggled to explain this project, and who have helped me to better understand the topic in so many ways. I would especially like to thank Daniel Abramson, James Ackerman, Niall Atkinson, Turner Brooks, Cammy Brothers, Joseph Connors, Tracy Cooper, Keith Eggener, Adrian Forty, Alice Friedman, Anthony Grafton, Lauren Jacobi, Ingrid Rowland, and Thaïsa Way for their many kindnesses. As I began the project I was delighted to have the opportunity to exchange ideas with David Howes and Constance Classen during a fellowship at the CCA, and as I neared the end I was fortunate to benefit from Richard Etlin’s meticulous reading of the entire manuscript. Above all I would like to thank Christy Anderson for helping me to work out these ideas. Architecture affects all of us at a profound but often subliminal level, and the endless varieties of architectural experience help to explain the fascination we all have for the places that we have known in our lives, our enduring attachments to these environments, and our hopes for the future.

The generosity of time, spirit, and intellect offered by the two anonymous readers of the manuscript made critical improvements to the book. The warm and supportive community of the American Academy in Rome, under the superb leadership of Kimberly Bowes, where my initial ideas for the book took form during my residency as a Rome Prize Fellow in 2015–16, provided encouragement at an important point for the development of the project.

Holy Cross supported my research leave early on in the form of a sabbatical in 2014–15, and provided additional support during my year in Rome. The College also contributed to offset the production costs of the book’s publication with a subvention grant. Many Holy Cross colleagues offered support

xxx ACKNOWLEDGMENTS

along the way, including Rev. Philip Boroughs, SJ, Leah Hager Cohen, Margaret Freije, Ellen Keohane, Patricia Johnston, Tom Landy, Sarah Luria, Sara Mitchell, Lorelle Semley, and Brit Smith. Matt Gamber provided last-minute technical assistance. Support from the National Endowment for the Humanities in the form of a fellowship to attend the *City/Nature: Urban Environmental Humanities* summer institute at the University of Washington in 2017 provided additional perspective on the project.

I would like to thank Beatrice Rehl, editor at Cambridge University Press, for her confidence in the project, and to the staff at the Press for helping to bring the book into the world. Finally, I am grateful to my family – especially Sarah, Wyn, and Anna – for their abiding patience (especially as photographic subjects), and for their constant love and support.