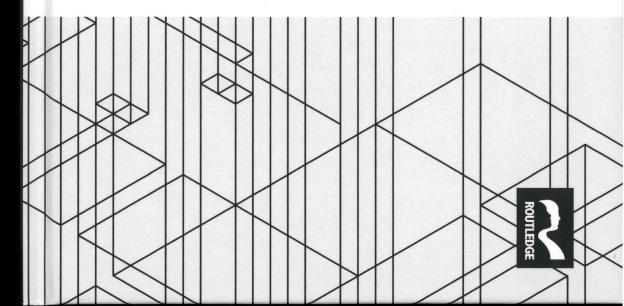# THEORIZING EQUITY IN THE MUSEUM

INTEGRATING PERSPECTIVES FROM RESEARCH AND PRACTICE

Edited by
Bronwyn Bevan and Bahia Ramos

ROUTLEDGE

Theorizing Equity in the Museum

Theorizing Equity in the Museum integrates the perspectives of learning researchers and museum practitioners to shed light on the deep-seated structures that must be accounted for if the field is to move past aspirations and rhetoric and toward more inclusive practices.

Written during a time when museums around the world were being forced to reckon with their institutional practices of exclusion; their histories of colonization, both cultural and intellectual; and, for many, their tenuous business models, the chapters leverage a range of theoretical perspectives to explore lived experiences of working in the museum toward changing the museum. Theories of spatial justice, critical pedagogy, culturally relevant pedagogy, critical race theory, and others are used to consider how the museum's dominant cultural structures and norms collide with museum professionals' aspirations for inclusive practices. The chapters present a mix of empirical research and reflections that collectively operate to theorize the museum as a potential force for enriching, empowering, and transforming an inclusive public's relationship with some of our most powerful ideas and aspirations. But first they must change, from the inside out.

Grounded in practice and practical problems, *Theorizing Equity in the Museum* demonstrates how theory can be used as a practical tool for change. As a result, the book will be of interest to academics and students engaged in the study of museums, education, learning, and culture, as well as to museum practitioners with an interest in equity and inclusion.

Bronwyn Bevan is a senior research scientist at the University of Washington, USA.

Bahia Ramos directs the arts at the Wallace Foundation in New York City, USA.

Theorizing Equity in the Museum

Integrating Perspectives from Research and Practice

Edited by Bronwyn Bevan and Bahia Ramos

Routledge Research in Museum Studies

This series presents the latest research from right across the field of museum studies. It is not confined to any particular area, or school of thought, and seeks to provide coverage of a broad range of topics, theories and issues from around the world.

The following list includes only the most-recent titles to publish within the series. A list of the full catalogue of titles is available at: https://www.routledge.com/Routledge-Research-in-Museum-Studies/book-series/RRIMS

Museums of Language and the Display of Intangible Cultural Heritage
Edited by Margaret J-M Sönmez, Maia Wellington Gahtan and Nadia Cannata

Museums, Modernity and Conflict
Museums and Collections in and of War since the Nineteenth Century
Edited by Kate Hill

Negotiating Race and Rights in the Museum
Katy Bunning

Museums, Refugees and Communities
Domenico Sergi

Museums, International Exhibitions and China's Cultural Diplomacy
Da Kong

Curating Lively Objects
Exhibitions Beyond Disciplines
Edited by Lizzie Muller and Caroline Seck Langill

Theorizing Equity in the Museum
Integrating Perspectives from Research and Practice
Edited by Bronwyn Bevan and Bahia Ramos

Contents

Figures

Contributors

Louise Archer is the Karl Mannheim professor of sociology of education at University College London's Institute of Education, UK. Her research focuses on equity and social justice in relation to STEM participation.

Rokia Ballo is a science communicator and researcher whose work focuses on the construction, use, and communication of science for policy and intersecting forms of social inequality. She is co-chair of Science London, UK, which deliver workshops and resources for scientists and communicators to employ equitable practice in their work. She is committed to developing polyvocal and decolonial narratives of science that take us beyond academic institutions and center equity and social justice.

Micaela Balzer is currently director of Innovation and Learning at Impression 5 Science Center, in Lansing, Michigan, USA. Her role is to direct the Education Department from programmatic initiatives to staff who deliver educational programs, as well as to project manage current and future exhibits being developed and fabricated at Impression 5.

Bronwyn Bevan worked at the Exploratorium in San Francisco for almost 25 years, starting as a project coordinator for a program working with teachers, developing collaborations with universities and CBOs, and ultimately overseeing research and serving as a member of the senior management team. Her research examines how learning can be organized to empower individuals and communities.

Sinead Brien is a graduate student in the Curriculum, Instruction, and Teacher Education Department at Michigan State University, USA. Her experiences as a science educator led her to education research focused on expanding what counts as science in science education.

Angela Calabrese Barton is a professor in the Educational Studies Department at the University of Michigan, USA. Her research focuses on equity and justice issues in STEM education in school and community settings. A former chemistry teacher, she has also designed and taught community-based STEM for over two decades. She takes an historicized

and future-oriented ecological and participatory approach to give witness to and learn with community partners.

Rachel Chaffee is a research fellow in education at the American Museum of Natural History, New York City, USA. Her research uses sociocultural and feminist theoretical lenses to understand the ways that out-of-school learning environments can contribute to youth's identity development and potential persistence in STEM fields.

Correna Cohen holds a master's degree in Arts in Education from the Harvard Graduate School of Education, Massachusetts, USA. She has worked in high school programs at the Whitney Museum of American Art and most recently as a curatorial fellow in academic and public programs at Harvard Art Museums, where she coordinated training for the Graduate Student Teacher program.

Toni Dancstep has been studying informal STEM education for nearly two decades. She is passionate about equity, education, design, inquiry, and curiosity. She values collaboration and the enormity of impact possible when working with multi-disciplinary and diverse teams. She works at the USA National Science Foundation where she is a Division of Research on Learning program officer. She also worked as a visitor researcher at the Exploratorium for many years.

Subhadra Das is a writer, historian, and museum curator. From 2012 to 2021, she was the curator of the science collections at University College London (UCL), UK. In 2017 she curated *Bricks + Mortals*, an exhibition and podcast walking tour examining UCL's pivotal role in establishing eugenics as a science. Her forthcoming book is about science, power, race, and why we need to talk about Francis Galton.

Emily Dawson is an associate professor in the Department of Science and Technology Studies at University College London, UK. Her research focuses on how people encounter and engage with science, with an emphasis on equity and social justice. Her work focuses on how to understand and transform patterns of advantage and disadvantage caused by structural inequalities, such as racism, sexism, class discrimination, homophobia, ableism, and their intersections. In particular, she is interested in how we might *disrupt* rather than *reproduce* science-related injustices.

Eric Dimond is the director of exhibits at the Exploratorium, San Francisco, USA, and over the last 20 years has worked as a exhibit developer, project director, and principal investigator. Recently his work has focused on collaborations with museum partners in Korea, China, Singapore, Brazil, Omaha, and Palestine to help them develop their own exhibit development practices.

Sam **Haynor** works at the Exploratorium, San Francisco, USA. He loves things that go whoosh, ping, doink, and bonk! Sam has below-average crafting skills, but an above-average love of pompoms. He graduated from some places and worked at others, and has been greatly inspired by his students and their incredible imaginations that never seem to stop inventing.

Tramia Jackson serves as the senior coordinator for the Science Research Mentoring Consortium at the American Museum of Natural History, New York City, USA. She is interested in intersections between museums, community-based organizations, and equity and has served as project manager at the International Coalition of Sites of Conscience and director of education at the Fredericksburg Area Museum in Virginia, USA.

Won Jung Kim is a doctoral student in the Department of Curriculum, Instruction, and Teacher Education at Michigan State University, Lansing, USA. Her research focuses on supporting youths' equitable engagement with STEM that matters to themselves and their communities, in collaboration with informal educators seeking ways of justice-oriented pedagogies.

Luisa Massarani is the coordinator of the National (Brazilian) Institute of Public Communication of Science and Technology and of the Master's in Science Communication at House of Oswaldo Cruz, Oswaldo Cruz Foundation, Brazil.

Rabiah Mayas is the Ruth D. and Ken M. Davee vice president of education at the Museum of Science and Industry in Chicago, Illinois, USA. She oversees the museum's groundbreaking Welcome to Science Initiative, a suite of education programs dedicated to removing barriers to science education through interactive, hands-on, and innovative learning experiences for youth, educators, and families.

Shannon K. McManimon is an assistant professor at the State University of New York at New Paltz, USA, where she coordinates a social justice education master's degree program for educators working in higher education, P12 settings, nonprofits, and human services. She draws on experiences in schools, nonprofits, and activism to teach and study equity-focused teaching and learning.

Nik McPherson is an operations coordinator at Impression 5 Science Center in Lansing, Michigan, USA. He has also worked as a think tank innovator, creating and teaching hands-on STEM learning experiences for older children and teens. He enjoys reducing or removing barriers to understanding complex topics and making science accessible to everyone.

Vanessa Mignan is a trainer and a social inclusion consultant for science engagement institutions. She has developed, implemented, and evaluated educational and training programs both at a national (in France) and

Aaliyah El-Amin is a lecturer at the Harvard Graduate School of Education, Massachusetts, USA. Her research focuses on nurturing K–12 students' critical consciousness about race, preparing teachers/educators to teach about race and racism in schools, and liberation schooling.

Mariana Pereira Fernandes is a researcher at the Group Accessible Science Museums and Centers Group, Rio de Janeiro, Brazil. She is also coordinator of education and outreach at LIneA, the e-Astronomy Interinstitutional Laboratory in Brazil.

Veronica Garcia-Luis is the program director for diversity, equity, and inclusion at the Exploratorium, San Francisco, USA. She has more than 20 years of experience researching and developing equity-focused programs and exhibits to increase access to STEM learning opportunities for non-dominant communities. She is committed to anti-racist practices in informal learning environments.

Cecilia Garibay is the Principal of the Garibay Group, a Chicago, USA-based, nationally recognized audience research and consulting firm, where she spends much of her time thinking about the role of museums and other informal learning institutions in championing and fostering social change. She regularly consults with institutions on audience development, organizational change, and inclusion. She is widely acknowledged as a leading voice in the study and development of equity-focused research and evaluation in the informal learning field. She has successfully bridged the worlds of research and practice, bringing theoretical acumen to projects and injecting practical wisdom into her consulting.

Day Greenberg is an educational studies research scientist at the University of Michigan, Lansing, USA. She explores justice-oriented out-of-school STEM learning and development towards youth-defined futures, using critical participatory approaches with BIPOC families and in low-income communities. Establishing and maintaining long-term, sustainable relationships with community partners make her participatory work possible. She has been embedded in community research-practice partnership spaces and programs for more than eight years, and she leads new institutional collaborations to continue expanding this work.

Preeti Gupta is the drector of youth initiatives at the American Museum of Natural History, New York City, USA. She is responsible for strategic planning, program development, human capital development, and research and evaluation for out-of-school-time youth initiatives.

Karen Hammerness, is the director of educational research and evaluation at the American Museum of Natural History, New York City, USA, and is the co-principal investigator of the "Staying in Science" study described in this volume. Her most recent book is *Preparing Science Teachers through Practice-Based Teacher Education* (Harvard Education Press, 2020).

European level. She loves mixing different people and approaches in order to create inclusive spaces for novel encounters with knowledge.

Ayaan Natala is a research-scholar-activist who grew up in Minnesota (Mni Sota), also formally known as Ojibwe/Dakota Land, USA. She has facilitated and participated in youth education, museum equity, mental health activism, and social justice movement–building work. Currently, she is an American Studies doctoral student at the University of Minnesota, USA.

Jessica Norberto Rocha is a science communicator at the Cecierj Foundation. She is the coordinator of the research group Accessible Science Museums and Centres. She is also a researcher at the National (Brazilian) Institute of Public Communication of Science and Technology, and professor of the Masters in Science Communication at the Oswaldo Cruz Foundation. She was a Faperj young scientist of Rio de Janeiro.

Vicente Oropeza is a senior technician at the Exploratorium, San Francisco, USA. He has been building exhibits for other museums throughout the country and the globe for the first ten years and for the last five years has been dedicated to making the experience on the museum's floor more engaging.

Clémence Perronnet is a sociologist and an associate professor of Education Sciences at the Catholic University of the West, France. Her research focuses on the social construction of STEM participation and on the gender and class inequalities that determine access and engagement with science.

Emily Pringle trained as a painter and worked for several years as an artist, educator, researcher, and programmer. In 2010 she joined Tate as head of learning practice and research. In that role she convened the Tate Research Centre: Learning and researched and wrote specifically on the role of artists in museum education and creative learning more broadly. In 2017 she was awarded an AHRC Leadership Fellowship to examine research practices in art museums. The publication from this research, *Rethinking Research in the Art Museum*, was published in July 2019. In February 2019 Emily was appointed Head of Research at Tate and in May 2019 she was made an honorary professor at the University of Nottingham, UK.

Bahia Ramos is director of arts at the Wallace Foundation, New York, USA. She leads the team responsible for the strategy and implementation of the foundation's work in areas including building audiences for the arts and promoting arts education for young people. Before arriving at Wallace, Ramos served as program director of the arts for the Knight Foundation. In that role, she built national partnerships and initiatives with organizations such as ArtPlace and Sundance, and worked on

the local level to bring arts experiences to diverse audiences and neighborhoods.

Lisa Sindorf is an educator and researcher from California. Her work at the Exploratorium, San Francisco, USA, investigated a variety of areas, including gender, making, and data visualization. Most recently, she is working in industry, exploring the user experience of jobseeking.

Jessica Strick has been creating exhibits at Exploratorium, San Francisco, USA, for many years, more recently helping build up the newer collection of human phenomena exhibits. Between her most recent work on the temporary show about identity, *Self, Made*, and her work as an advisor for EDGE, she has taken to heart the importance of designing for inclusivity.

Diane Whitmore works at the Exploratorium, San Francisco, USA. At their best, Exploratorium exhibits are iterative, visitor-responsive, and durable in the extreme. As a veteran exhibit developer, she works in wood, metal, and plastic to create unique designs that foster visitor engagement in the areas of physics, math, and biology, as well as human phenomena like attention, emotion, judgment, and implicit bias.

Mary Elizabeth Yarbrough is a visual artist in San Francisco, USA. She was an exhibit developer at the Exploratorium on the exhibitions *Listen*, *Geometry Playground*, and *The Science of Sharing*.

Bronwyn worked at the Exploratorium in San Francisco for almost 25 years, a museum seeped in a culture of "how?" and "what if?" Working with artists, scientists, educators, and builders passionate about asking questions deeply shaped her intellectual development. But unlike in Bahia's case, few at the museum, at least at that time, questioned the white heteronormative construct of the museum. It wasn't until her role at the museum shifted to mostly working with other allied communities— community-based afterschool organizations, equity-oriented research communities, national policymakers concerned with larger historical patterns of inclusion and exclusion—that she came to recognize what the museum was not doing, was not being, and was not becoming; that is, how far off its radar marginalized communities were in the design and development of its work. She also experienced firsthand, on both sides of the management table, the internal resistance to change in terms of the work museums do and how they are structured internally to do that work. She brought these concerns to her last 15 years at the museum, which involved primarily field-building work (professional development programs, research, and policy-focused efforts) that sought to bridge communities of research, theory, and practice toward a more inclusive and therefore more impactful museum.

Most museums are inseparable, in our imaginations, from the physical structures that house them. We have memories, emotions, and discoveries that are forever connected to these spaces. To build equitable and inclusive museums there is a need to look inside—to tear down and then rebuild the invisible internal structures that undergird the practices that produce the place that provides the experience and the memories. This is not a process of destruction, but rather a process of learning and growth, of organismal development. Museums are often described as places of learning; can they become learning places? Can they become curious about what they do and why, who they serve and don't and why, and what they could do and why? This process of ongoing self-interrogation must become ritualized and routinized, and over time change will happen—museums will become, through this process, more relevant, more resilient, more excellent, and more impactful.

We are not the first to make this call. This volume brings, we hope, two relatively new contributions to the discourse on making museum spaces and places more equitable.

First, it contains accounts where the persistent exclusionary practices in the museum are theorized and investigated with the intent to get at the deep structural issues that work against the inclusive museum. For example, as detailed below, chapters look closely at the design of spaces, the interactions of competing agendas, and the marginalizing practices of different museum stakeholders.

Second, it builds on the field of the learning sciences to share a specific approach to building equitable museums—an approach called

Preface

Imagining equity, theorizing change in the museum

Bronwyn Bevan and Bahia Ramos

Museums are sites for contemplation, wonder, elation, gathering, and some-times mourning. They activate our intertwined emotional, sensorial, social, and intellectual resources in ways that few other public spaces can—as they connect the past, present, and future through the objects and collections they hold. Historically, museums have been designed to collect, preserve, engage, and instruct. They have typically been designed and led *by* those whose lives are dedicated to the collections *for* those who follow the same, or similar, aesthetic, cultural, scientific, historical ways of thinking and longing. Like most successful institutions, they fulfill the function for which they were designed. So when we observe inequities in museum efforts and outcomes we need to ask how the often unspoken and unrecognized structures that make up a museum—their missions, their collections and the narratives the museum construct about them, the staff, the stakeholders, the institutional norms and practices—are implicated in these ongoing acts of exclusion.

The need to develop a more inclusive museum is a long-standing con-cern that has been the subject of countless books, papers, and conferences (e.g., MacDonald, 1998; Sandell & Nightingale, 2012), and the discussion continues today. This work is deeply personal to us. Bahia began her career nearly 25 years ago at the Brooklyn Children's Museum. She worked along-side colleagues fiercely dedicated to the idea that, despite the limitations of the museum as a white, heteronormative construct, they would counter that norm to acknowledge and honor the lived experience of the children in the surrounding neighborhoods. The rules were simple: listen to com-munity stakeholders, build and nurture strong personal relationships, and ensure the walls and collections of the institution authentically reflected the identities and experiences of its Crown Heights neighbors. None of this was radically innovative. However, the practice as ritual—that is, something so engrained in the daily life of the institution that it didn't require conscious effort—created a lasting connection between the museum, its staff, and the community. After seeing the impact of this approach in real time on the lives of young people, who were otherwise told their existence had no value, Bahia has used it to guide her own practice throughout her career in arts and culture philanthropy.

research–practice partnerships—which, in the contexts of health and education, have led to lasting improvements and change (Coburn & Penuel, 2016; Palinkas et al., 2009).

Why research and practice?

Arguing that research must be relevant and useful to practitioners in order to count it as rigorous (Gutiérrez & Penuel, 2014), researchers in the learning sciences have proposed *research–practice partnerships* (RPPs) as a powerful tool for more ethical and equitable knowledge production (Bevan & Penuel, 2018). RPPs foreground problems of practice, leverage practitioner insights, and also lift up structural, historical, and systemic issues that may otherwise serve as invisible, unquestioned, and insidious barriers to making change. They flatten hierarchies of knowledge and insight, and expand the professional capacity, social networks, and lines of interest of both participating researchers and practitioners. Because they have been designed in authentic contexts, baking in practitioner knowledge of the wide range of factors that influence the ability to sustain change, they are proposed as being able to produce more sustainable change. Insights are produced through the work of making change in practice, by practitioners, for practice.

If RPPs are organized to focus on issues of equity, can they produce results that can be sustained over time, and thus can contribute to shifts in exclusionary practices? If we conceptualize museums as educative spaces—in the broadest sense of the word where learning is understood as a process of being and becoming—perhaps theories related to liberatory education and social movements (e.g., the work of adrienne maree brown, Paulo Freire, Gloria Gladson-Billings, bell hooks, Frantz Fanon, Michel Foucault, and others) might open doors to new ways of thinking about and working on the long-standing, obdurate reality of museums and their practices of exclusion.

We hope that the theorized perspectives presented in this book can shed light not only on some of the current issues and challenges facing the field, but on the power of deeply theorized inquiries to support the ongoing work of making the museum inclusive, as illustrated in this volume's chapters. Museums in these chapters are defined as places that collect, create, and present cultural artifacts—from works of art to representations of natural phenomena—and, to differing degrees, engage their audiences in and with the epistemic practices associated with art and science. Specifically, these chapters describe art museums, science museums, natural history museums, and science centers.

In each of the nine chapters that follow, authors, for the most part from research-practice partnerships, describe how they have used theory to frame their inquiries and illuminate new understanding. While all take a deeply socio-cultural approach, and while there is some overlap among them, each chapter foregrounds a different theoretical approach—starting with

spatial justice theory and ending with theories of the body. In some cases the chapters report the results of empirical studies. In others they use theory to frame the excruciating lived struggle of changing the museum from the inside. Among the theories leveraged in these chapters are: spatial justice; critical pedagogy; feminism and intersectionality; identity in communities of practice; Foucauldian discourses of power; culturally responsive pedagogy and gender; rightful presence in socio-cultural contexts; social model of disability theory; and theories of embodiment, with a small "t." These accounts, the majority of which come from the United States, with others from the UK, France, and Brazil, will be of interest to researchers working with theory in a wide range of settings and cultural contexts.

Theory as a tool for practice

In Chapter 1, Calabrese Barton, Balzer, Kim, McPherson, Brien, Greenberg, Archer, and members of the Youth Action Council describe a long-term research–practice partnership that began with a focus on a maker space and became a much broader consideration of how the design and enactment of the science museum shaped the possibilities for belonging for young people from historically marginalized communities. Drawing on theories of *spatial justice* (Massey, 2005), and through the lens of *rightful presence* (Calabrese Barton & Tan, 2019), this chapter describes how the RPP team engaged youth to co-produce new social-spatial imaginaries for what the museum could be. "Spatial imaginaries," they write,

> are the ways in which people think about, desire, and act towards possible social futures in a particular space. ... We call attention to both a critique of how the white, patriarchal imaginary dominates in science centers and to the imaginaries of the youth of Color and girls with whom we collaboratively sought to reclaim the Center.

In Chapter 2, Cohen and El-Amin describe how they used critical pedagogy (Freire, 1998) in conjunction with critical theory, to develop concrete ways to disrupt art museum narratives found in the galleries that were damaging to young people from communities of color. They describe how their research–practice relationship provided an opportunity to theorize the museum and to explore how theory could be used as a tool for action. As they note, applying critical pedagogy "must involve more than engaging activities and a rejection of the lecture-tour." In contrast to the transmission approach, it must "[set] itself the task of demythologizing"—it must help students and teachers work together to recognize, critique, and disrupt ahistorical, unjust, or damaging narratives constructed by some museums. This chapter also shows how ideas and practices that emerge from research-practice partnerships can spread and adapt to new contexts, in this case through the development of a framework for training museum educators.

Dimond, Haynor, Oropeza, Strick, Whitmore, and Yarbrough worked over more than a decade to jointly negotiate an approach to adapting culturally responsive and sustaining pedagogies (Gay, 2018; Ladson-Billings, 199; Paris, 2012) with postmodern feminist sensibilities (Crasnow et al., 2015) to develop a set of female-responsive exhibits in a science museum. In the face of institutional skepticism, if not resistance, they drew upon these theories, twinned with ongoing data collection within the museum, to generate understanding and support for a project that challenged the museum's long-standing masculinized exhibit design practices. This chapter also demonstrates the sustainable nature of RPP results, with the results of the inquiry into gender-inclusive exhibit design becoming a central part of institutional on-boarding in the exhibit shop, as well as the core curriculum of a set of workshops for the field.

In Chapter 7, Bevan, Garibay, and Mayas share their work designing and evaluating a professional learning program for early/mid-career informal educators whose work focused on equity and inclusion. Their chapter draws on emerging theories of "rightful presence" (Calabrese Barton & Tan, 2020) to theorize and design programs for museum staff who experienced marginalization and tokenization within their workplaces. Their central premise is that, through unexamined, unacknowledged, and unarticulated internal racist practices, museums are demoralizing and burning out the very staff members whom they have hired and trained to lead their community-based equity efforts and who are essential to transforming the museum in the long run. As they note, "museum leaders must consider how the museum experience, for staff as well as for public audiences, can be redesigned to leverage the cultural norms of those who have been historically unrepresented and excluded as the very means for successful participation and belonging."

In Chapter 8, Norberto Rocha, Fernandes, and Massarani share the results of their work investigating museum practices with respect to physical abilities in Brazil. Conceptualizing ability/disability using social models of disability (Barnes, 2003; Cohen et al., 2012), they share a framework they have developed that addresses physical, attitudinal, and communicational approaches related to access in science museums. Through surveys and interviews they find that museums lag in prioritizing—through resources, staffing, and training—their commitments to serving people with physical and other disabilities, even though many have changed their mission statements to reflect such a commitment. While museum staff who participated in their study reported that they had received some training for working with individuals with disabilities, many reported feeling "unconfident, in large part because they lack practical experiences applying the training in the museums in which they work." While noting the essential need for resources, they conclude with a call for museums to work with and learn from people with disabilities before making investments that can transform the museum.

Finally, in Chapter 9, McManimon and Natala share their grief, despair, and hope crystallized in the summer of 2020 in Minneapolis and St. Paul

In Chapter 3, Ballo, Das, Dawson, Mignan, and Perronnet share thoughts and insights generated through discussions they held together during the summer of 2020. Echoing the theory and method of bell hooks (1994), they reflect on their intersectional positionality and identities within the museum as they seek to disrupt patterns of exclusion and disregard. Their narrative makes clear the personal costs borne by staff who challenge the status quo, sharing experiences of both dismissal and tokenism. Citing the work of Foluke Adebisi (2020), their chapter seeks to open the black box of decolonization to attend to the culture within museums that resists lasting change. In this process, which they name an ongoing "battle," they note how theory has helped them "to explicitly detail practices such as institutional whiteness, to illustrate our experiences of racism with specificity, and to insist upon naming racisms and the insidious nature of white supremacy as it undergirds the institutions we work with."

Chapter 4 shares the work of researchers and practitioners at the American Museum of Natural History in New York. Chaffee, Gupta, Jackson, and Hammerness describe how the anti-racism movement of 2020 accelerated their team's reflections on whether or how the design of a science apprenticeship program for youth from marginalized communities might be bolstering systemic inequalities rather than dismantling them as intended. They share how their theories of identity development as unfolding processes of recognizing oneself, and being recognized by others, as capable in science within a scientific community of practice (Carlone & Johnson, 2007; Lave & Wenger, 1991) led them to look more closely at how that community of practice was being conceptualized and enacted in their program. This led them to query how their conceptualizations of what makes a good science student were operating to reinforce long-standing norms of what scientific communities of practice looked like, and thus reinscribing inequities in science education.

In Chapter 5, Emily Pringle from the Tate reflects on how the events of 2020 led her to revisit her 2019 model of the Four Discourses of the Museum to better understand the choices, actions, and inactions of the museum in the face of anti-racism and decolonization movements. Through a Foucauldian lens (1969) she analyzes "how decision making, resource allocation and activity in the museum are all shaped by pervasive 'regimes of truth,' or systems that determine what is generally recognized as true and acceptable within the overarching discourse." Her chapter asks: Is there room for transformation in this moment? What is working for, and what against it? Pringle problematizes current approaches to community engagement, noting how they can be inadvertently designed to perpetuate power structures. She concludes that while "external pressure is bringing about shifts in museum priorities, there is evidence to suggest that deep systemic change is likely to be slow and protracted."

A long-term research–practice partnership at the Exploratorium in San Francisco is described in Chapter 6. Sindorf, Dancstep, Garcia-Luis,

with the murder of George Floyd and the anti-racism movement that it amplified around the world. In a richly theorized text, they describe the painful tensions experienced by museum workers dedicated to equity who are working within the fundamentally white-supremacist institution of the museum. They call on the field to pursue a liberatory imagination—to reimagine and to work towards building that reimagined space (brown, 2017). Research and practice that seek to reimagine must, they say, take care to interweave lived experiences, focus on the "be-ing" in the relationship, and avoid sanitized versions of research. This, they note, is fundamentally the embodied practice of listening. "All research," they quote, "ultimately, pragmatically, brutally emanates from a corporeal body that exists within a sociopolitical context" (Spry, 2018). They conclude that "systems can't change if people don't change," reinforcing the need for deep internal work if museums are to become inclusive institutions.

This volume was begun in 2019, with chapters due in the spring of 2020, just as the global COVID-19 pandemic was shuttering museums around the globe, as museum staff were being furloughed and laid off, and as the anti-racism movement began to gather widespread attention, giving voice (or better: creating listeners) to museum staff, scholars, and critics who had been working on issues of equity and inclusion for decades. The events of 2020 not only delayed completion of the chapters by almost half a year, they also directly affected their contents. In some cases the events changed a chapter's focus, and in others they heightened thinking about the work in relationship to the larger global movement to change the museum. Yet, despite the responsiveness of these chapters to the times, we believe they are evergreen, because the work of making the museum an inclusive space will be an unending process, requiring constant renewal and commitment.

We thank the authors for persevering to complete their contributions to the book in a climate of trauma and uncertainty. We hope their work inspires others to leverage both research and practice to question the power and structure of cultural institutions and to work for the inclusive museum of the future.

One technical note: The table of contents and first pages of each chapter highlight the theories used in each chapter. However, when citing the chapters, please omit the descriptions of the theories, which we have included only to facilitate use of the volume.

References

Adebisi, F. (2020). *The Power of Education: A Discussion on Race and Learning.* Paper presented at the Urban Circle. Retrieved 1 January 2021 from https://www.yesfutures.org/post/the-power-of-education-a-discussion-of-race-and-learning.

Barnes, C. (2003). What a difference a decade makes: Reflections on doing 'emancipatory' disability research. *Disability and Society*, *18*(1), 3–18.

Bevan, B., & Penuel, W. R. (Eds.). (2018). *Connecting Research and Practice for Educational Improvement: Ethical and Equitable Approaches.* New York: Routledge.

brown, a. m. (2017). *Emergent Strategy: Shaping Change, Changing Worlds.* AK Press.

Calabrese Barton, A., & Tan, E. (2019). Designing for rightful presence in STEM: The role of making present practices designing for rightful presence in STEM. *Journal of the Learning Sciences,* 1–43. https://doi.org/10.1080/10508406.2019.1591411

Calabrese Barton, A., & Tan, E. (2020). Beyond equity as inclusion: A framework of "rightful presence" for guiding justice-oriented studies in teaching and learning. *Educational Researcher.* https://doi.org/10.3102/0013189X20927363

Carlone, H., & Johnson, A. (2007). Understanding the science experiences of successful women of color: Science identity as an analytic lens. *Journal of Research in Science Teaching,* 44(8), 1187–1218. https://doi.org/10.1002/tea.20237

Coburn, C. E., & Penuel, W. R. (2016). Research-practice partnerships in education: Outcomes, dynamics, and open questions. *Educational Researcher,* 45(1), 48–54.

Cohen, R., Duarte, C. R., & Brasileiro, A. (2012). *Acessibilidade a Museus. Ministério da Cultura / Instituto Brasileiro de Museus.* Brasília, DF: MinC/Ibram. Cadernos Museológicos 2.

Crasnow, S., Wylie, A., Bauchspies, W. K., & Potter, E. (2015). Feminist perspectives on science. In *Stanford Encyclopedia of Philosophy.* Retrieved August 12, 2020, https://plato.stanford.edu/entries/feminist-science/

Foucault, M. (1969). Archaeology of Knowledge and the Discourse on Language. Abingdon: Routledge Classics.

Freire, P. (1998). *The Paolo Freire Reader* (A. M. Araujo & D. Macedo, Eds.). New York: Continuum Books.

Gay, G. (2018). *Culturally Responsive Teaching: Theory, Research, and Practice* (3rd ed.). New York: Teachers College Press.

Gonzalez, N., Moll, L. C., & Amanti, C. (2005). Funds of Knowledge: Theorizing Practices in Households and Classrooms: Lawrence Erlbaum Associates.

Gutiérrez, K. D., & Penuel, W. R. (2014). Relevance to practice as a criterion for rigor. *Educational Researcher,* 43(1), 19–23. https://doi.org/10.3102/0013189X13520289

hooks, b. (1994). *Teaching to Transgress: Education as the Practice of Freedom.* London: Routledge.

Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal,* 32(3), 465–491.

Lave, J., & Wenger, E. (1991). *Situated Learning: Legitimate Peripheral Participation.* Cambridge: Cambridge University Press.

Macdonald, S. (1998). Exhibitions of power and powers of exhibition: An introduction to the politics of display. In S. Macdonald (Ed.), *The Politics of Display: Museums, Science Culture* (pp. 1–21). London: Routledge.

Massey, D. (2005). *For Space.* Thousand Oaks, CA: SAGE.

Palinkas, L. A., Aarons, G. A., Chorpita, B. F., Hoagwood, K., Landsverk, J., & Weisz, J. (2009). Cultural exchange and the implementation of evidence-based practices: Two case studies. *Research on Social Work Practice,* 19(5), 602–612.

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. *Educational Researcher, 41*(3), 93–97.

Sandell, R., & Nightingale, E. (Eds.). (2012). *Museums, Equality and Social Justice.* New York: Routledge.

Spry, T. (2018). Autoethnography and the other: Performative embodiment and a bid for utopia. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (5th ed., pp. 627–649). SAGE.