The MIT Press London Book Fair

2023 Rights Guide



Dear Friends and Readers,

Many of the excellent new titles out this season from the MIT Press speak to the imperative to connect: human to human,



Amy Brand

human to animal, human to earth (and other planets), parent to child, person to knowledge, literature, and art. Human beings are pack animals after all, in both senses of the term. We thrive on offline community and social connection. We strive to be seen. In these laden times, the most dehumanizing forces in our world are those that impede our engagement with, and trust of, one another.

We learn here from leading authors that how we design our

habitats, technologies, and policies is inextricable from how we

include others across the boundaries of race, space, gender, and ability. That how we work and lead dictates how we will advance and overcome, as individuals and as a collective. So too, that how our children use technology now will decisively shape their own futures.

Among the many joys of working in publishing is the power to communicate vital insights and discoveries, ignite understanding, and disarm disconnection. The printed word, and in particular the well-crafted book, is still the best vehicle to connect across vast distances with the thoughts of another human being, through which new learnings can be shared and mobilized. As we enter an era in which the line between interior and external reality is increasingly blurred, who wouldn't wonder on occasion whether books are our highest reality?

From all of us at the MIT Press, browse, read, enjoy, and stand for what you believe in.

Amy Brand, PhD

Director and Publisher, The MIT Press

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Decolonizing Design

A Cultural Justice Guidebook

Elizabeth (Dori) Tunstall

illustrated by Ene Agi

A guide to the institutional transformation of design theory and practice that restores the long-excluded cultures of Indigenous, Black, and People of Color.

From the excesses of world expositions to the myths of better living through technology, modernist design, in its European-based guises, has excluded and oppressed the very people whose lands and lives it reshaped. Decolonizing Design first asks how modernist design has encompassed and advanced the harmful project of colonization-then shows how design might address these harms by recentering its theory and practice in global Indigenous cultures and histories.

A leading figure in the movement to decolonize design, Dori Tunstall uses hard-hitting real-life examples and case studies drawn from over fifteen years of working to transform institutions to better reflect the lived experiences of Indigenous, Black, and People of Color. Her book is at once enlightening, inspiring, and practical, interweaving her lived experiences with extensive research to show what decolonizing design means, how it heals, and how to practice it in our institutions today.

For leaders and practitioners in design institutions and communities, Tunstall's work demonstrates how we can transform the way we imagine and remake the world, replacing pain and repression with equity, inclusion, and diversity-in short, she shows us how to realize the infinite possibilities that decolonized design represents.

Elizabeth (Dori) Tunstall is Dean of the Faculty of Design at Ontario College of Art and Design University, Toronto, the first Black person to hold such a post in the world. Her work has been featured in Print magazine, Fast Company, AIGA's Eye on Design, and Design Observer, among other venues. She was awarded the Sir Misha Black Medal in 2022.

design

February 51/2 x 8, 136 pp. 6 illus

US \$22.95T/\$29.95 CAN cloth 978-0-262-04769-2



ELIZABETH (DORI) TUNSTALL

1

"Dori Tunstall is a trailblazer! Her book serves as a critical addition to the canon of design, exposing the lies and misinterpretations often hidden within modernist pedagogies."

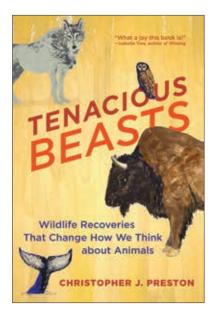
-Kevin Bethune, author of Reimagining Design; founder, dreams • design + life

"A once-in-a-decade book. An inspiring, informative, and powerful blueprint that can enable any of us to engage with a topic of our time-decolonization."

-Rama Gheerawo, The Helen Hamlyn Centre for Design, Royal College of Art; author of Creative Leadership: Born from Design

"Finally, a comprehensive, substantive, and practical book to inform decision-makers. I'll be referencing it regularly with both students and administrators."

— Mindy Magyar (Mi'kmaw descent), Associate Professor, College of Art and Design, Faculty Associate, Office of the Provost, Rochester Institute of Technology



Tenacious Beasts

Wildlife Recoveries That Change How We Think about Animals

Christopher J. Preston

An inspiring look at wildlife species that are defying the odds and teaching important lessons about how to share a planet.

The news about wildlife is dire—more than 900 species have been wiped off the planet since industrialization. Against this bleak backdrop, however, there are also glimmers of hope and crucial lessons to be learned from animals that have defied global trends toward extinction. Bear in Italy, bison in North America, whales in the Atlantic. These populations are back from the brink, some of them in numbers unimaginable in a century. How has this happened? What shifts in thinking did it demand? In crisp, transporting prose, Christopher Preston reveals the mysteries and challenges at the heart of these resurgences.

Drawing on compelling personal stories from the researchers, Indigenous people, and activists who know the creatures best, Preston weaves together a gripping narrative of how some species are taking back vital, ecological roles. Each section of the book—farms, prairies, rivers, forests, oceans—offers a philosophical shift in how humans ought to think about animals, passionately advocating for the changes in attitude necessary for wildlife recovery.

Tenacious Beasts is quintessential nature writing for the Anthropocene, touching on different facets of ecological restoration from Indigenous knowledge to rewilding practices. More important, perhaps, the book offers a road map—and a measure of hope—for a future in which humans and animals can once again coexist.

Christopher Preston's essays have appeared in the *Atlantic*, *Smithsonian*, and *Aeon*, and on the BBC website. He teaches environmental philosophy at the University of Montana and lives in Missoula, MT.

nature

February 6 x 9, 328 pp.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04756-2 "In the midst of ecological crisis, Preston brings genuinely good news: a few of our fellow species are not only thriving, but demanding that we do better by the rest of life on Earth."

- Michelle Nijhuis, author of Beloved Beasts

"What a joy this book is! Fascinating, intelligent, pragmatic, and moving. Preston's tenacious beasts show us how to live with nature and claim a more hopeful future for our planet."

— Isabella Tree, author of Wilding: The Return of Nature to a British Farm

"Preston shows that many species that once seemed doomed have posted surprising recoveries. All they ask is a fighting chance to survive; all I ask is that you read this book."

—Carl Safina, author of Becoming Wild and Beyond Words

Also available



978-0-262-53709-4

More than a Glitch

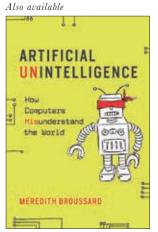
Confronting Race, Gender, and Ability Bias in Tech Meredith Broussard

"With unmatched clarity and galvanizing insight, Meredith Broussard demystifies the mathematical underpinnings of Al and slays the magical mythos of Big Tech like no other! Everyone who cares about the future of tech and society should read this book yesterday."

-Ruha Benjamin, author of Race after Technology and Viral Justice

"From the case of the racist soap dispenser to the assistive listening technology that wasn't, *More than a Glitch* exposes and analyzes the way unreflective use of tech can reinforce the very human biases it claims to be immune to."

— Jordan Ellenberg, Professor of Mathematics, University of Wisconsin-Madison; author of *How Not To Be Wrong* and *Shape*



978-0-262-53701-8

When technology reinforces inequality, it's not just a glitch—it's a signal that we need to redesign our systems to create a more equitable world.

The word "glitch" implies an incidental error, as easy to patch up as it is to identify. But what if racism, sexism, and ableism aren't just bugs in mostly functional machinery—they're coded into the system itself? In *More Than a Glitch*, Meredith Broussard demonstrates how technological neutrality is a myth and why algorithms need to be held accountable.

Broussard, a data scientist who has worked in journalism and software development, masterfully synthesizes concepts from computer science and sociology alongside her own experience as one of the few Black female researchers in artificial intelligence. Citing examples such as sensors trained only to recognize lighter skin tones and the dangerous feedback loops that arise when predictive policing and medical diagnostic algorithms are fed on discriminatory data, she illuminates how technologies designed to boost convenience are also prone to perpetuating bias. Even with good intentions, fallible humans develop programs that can inflict devastating consequences when ineptitude tips into oppression.

Broussard argues that the solution isn't to make omnipresent tech more inclusive, but to root out the frameworks that target certain demographics as "other" to begin with. With sweeping implications for disciplines ranging from jurisprudence to medicine, the simultaneously pathbreaking and practical insights of *More Than a Glitch* are essential reading for anyone invested in building a more equitable future.

Meredith Broussard is Associate Professor at the Arthur L. Carter Journalism Institute of New York University and Research Director at the NYU Alliance for Public Interest Technology. She is the author of *Artificial Unintelligence: How Computers Misunderstand the World* (MIT Press). Her work has been featured in the *New Yorker*, the *New York Times*, the *Atlantic, BBC, Wired*, the *Economist*, and more. She appears in the 2020 documentary *Coded Bias* and serves on the advisory board for the Center for Critical Race & Digital Studies. More information at @merbroussard or meredithbroussard.com.

technology March 6 x 9, 248 pp. 9 illus.

US \$26.95T/\$35.95 CAN cloth 978-0-262-04765-4



- < Confronting Race, >
- < Gender, >
- < and Ability Bias >
- < in Tech >

Meredith Broussard

The House at Capo d'Orso

Sebastiano Brandolini



The House at Capo d'Orso

Sebastiano Brandolini

translated by Huw Evans

Rocks, wind, sea, and sky frame a house on the Sardinian coast, and the house frames a family's life and art, suspended in memory.

How does a house shape experience? How does architecture establish a practice of living? Architect Sebastiano Brandolini invites readers on a meditative tour of his family's house on the Sardinian coast, describing everything from the geology of the rocks beneath, to the history of the surrounding villages, to the way the shifting light measures the day. More than the story of a single summer home written by an accomplished architect, this is a study of how place, the built environment, and daily practice make up our lives, at the most minute level of detail. Recalling the essays of Walter Benjamin, Bill Bryson, Rebecca Solnit, and Lawrence Weschler, Brandolini's writing weaves literature, art history, and the transformation of Sardinia since the 1960s into a single fabric.

The House at Capo d'Orso is not only a study of architecture and life in the built environment, but of family life, and the way the Brandolini family adapted themselves to the house they built. For Sebastiano Brandolini's parents, this meant letting their house influence their work in poetry and visual art, and this book attends carefully to the way houses can guide the creative process. The wind and water of Sardinia change more than the rocks and trees; they invite the imagination itself to form new shapes.

Sebastiano Brandolini is an architect based in Milan, a professor at the Milan Polytechnic, and the author of architectural monographs and guidebooks.

memoir | travel May 51/2 x 8 3/4, 248 pp. 23 illus., 18 photos

US \$24.95T/\$33.95 CAN paper 978-0-262-54496-2

Italian language rights are not available.

"Certain places—or perhaps objects-in the interior of Sardinia have left such a deep impression on my mind that I cannot rid myself them, becoming obsessions that give me pleasure and prompt reflections. For us obligatory positivists of the twenty-first century, there is something enigmatic and incomprehensible about these objects. They oscillate between architecture, archeology, geology, and landscape, but do not belong to any of these categories; as soon as we think we've found a plausible classification, we are assailed by doubts and qualifications."

-from The House at Capo d'Orso

Invention and Innovation

A Brief History of Hype and Failure **Vaclav Smil**

From the New York Times-bestselling author, a new volume on the history of human ingenuity—and its attendant breakthroughs and busts.

The world is never finished catching up with Vaclav Smil. In his latest and perhaps most readable book, *Invention and Innovation*, the prolific author—a favorite of Bill Gates—pens an insightful and fact-filled jaunt through the history of human invention. Impatient with the hype that so often accompanies innovation, Smil offers in this book a clear-eyed corrective to the overpromises that accompany everything from new cures for diseases to AI. He reminds us that even after we go quite far along the invention-developmentapplication trajectory, we may never get anything real to deploy. Or worse, even after we have succeeded by introducing an invention, its future may be marked by underperformance, disappointment, demise, or outright harm.

Drawing on his vast breadth of scientific and historical knowledge, Smil explains the difference between invention and innovation, and looks not only at inventions that failed to dominate as promised (such as the airship, nuclear fission, and supersonic flight), but also at those that turned disastrous (leaded gasoline, DDT, and chlorofluorocarbons). And finally, most importantly, he offers a "wish list" of inventions that we most urgently need to confront the staggering challenges of the twenty-first century.

Filled with engaging examples and pragmatic approaches, this book is a sobering account of the folly that so often attends human ingenuity—and how we can, and must, better align our expectations with reality.

Vaclav Smil is Distinguished Professor Emeritus at the University of Manitoba. He is the author of forty books, including *New York Times* bestseller *How the World Really Works* and *Energy and Civilization*, published by the MIT Press. In 2010 he was named by *Foreign Policy* as one of the Top 100 Global Thinkers. In 2013 Bill Gates wrote on his website that "there is no author whose books I look forward to more than Vaclav Smil."

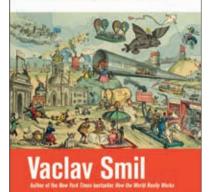
history

February 6 x 9, 232 pp. 28 illus.

US \$24.95T/\$33.95 CAN cloth 978-0-262-04805-7

Invention and Innovation

A Brief History of Hype and Failure



Praise for previous Vaclav Smil books

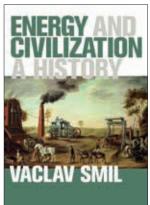
"I wait for new Vaclav Smil books the way some people wait for the next *Star Wars* movie."

Bill Gates

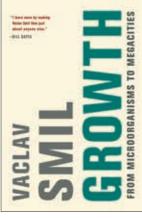
"You can agree or disagree with Smil—accept or doubt his 'just the facts' posture—but you probably shouldn't ignore him."

— The Washington Post

Also available



978-0-262-53616-5



ETHICAL QUESTIONS AND QUANDARIES FOR LIVING IN OUTER SPACE



Off-Earth

Ethical Questions and Quandaries for Living in Outer Space

Erika Nesvold

Can we do better in space than we've done here on Earth?

We've pinpointed the destination, refined the technology, designed the habitat, outfitted our space residents. Are we forgetting something? A timely reminder that it's not just rocket science, this thought-provoking book explores the all-too-human issues raised by the prospect of settling in outer space. It's worth remembering, Erika Nesvold suggests, that in making new worlds, we don't necessarily leave our earthly problems behind. Accordingly, her work highlights the complex ethical challenges that accompany any otherworldly venture—questions about the environment, labor rights, and medical ethics, among others.

Any such venture, Nesvold contends, must be made on behalf of all humanity, with global input and collaboration. *Off-Earth* thus includes historical and contemporary examples from outside the dominant Western/US, abled, and privileged narrative of the space industry. Nesvold calls on experts in ethics, sociology, history, social justice, and law to launch a hopeful conversation about the potential ethical pitfalls of becoming a multi-planet species—and, ideally, to shed light on similar problems we presently face here on Earth.

Space settlement is rapidly becoming ever more likely. Will it look like the utopian vision of *Star Trek?* Or the dark future of *Star Wars?* Nesvold challenges us to decide.

Erika Nesvold, an astrophysicist, has worked as a researcher at NASA Goddard and the Carnegie Institution for Science. She is a developer for Universe Sandbox, a physics-based space simulator; cofounder of the nonprofit organization the JustSpace Alliance; and the creator and host of the podcast Making New Worlds.

science

March 6 x 9, 304 pp.

US \$27.95T/\$36.95 CAN cloth 978-0-262-04754-8

Worlds Without End

Exoplanets, Habitability, and the Future of Humanity

Chris Impey

The science of finding habitable planets beyond our solar system and the prospects for establishing human civilization away from our ever-less-habitable planetary home.

Planet Earth, it turns out, may not be the best of all possible worlds—and lately humanity has been carelessly depleting resources, decimating species, and degrading everything needed for life. Meanwhile, human ingenuity has opened up a vista of habitable worlds well beyond our wildest dreams of outposts on Mars. *Worlds Without End* is an expertly guided tour of this thrilling frontier in astronomy: the search for planets with the potential to host life.

With the approachable style that has made him a leading interpreter of astronomy and space science, Chris Impey conducts readers across the vast, fastdeveloping field of astrobiology, surveying the dizzying advances carrying us ever closer to the discovery of life beyond Earth—and the prospect of humans living on another planet. Since the first exoplanet, or planet beyond our solar system, was discovered in 1995, over 4,000 more have been pinpointed, including hundreds of Earth-like planets, many of them habitable, detected by the Kepler satellite. With a view spanning astronomy, planetary science, geology, chemistry, and biology, Impey provides a state-of-the-art account of what's behind this accelerating progress, what's next, and what it might mean for humanity's future.

The existential threats that we face here on Earth lend urgency to this search, raising the question: Could space be our salvation? From the definition of habitability to the changing shape of space exploration—as it expands beyond the interests of government to the pursuits of private industry—*Worlds Without End* shows us the science, on horizons near and far, that may hold the answers.

Chris Impey, a University Distinguished Professor of Astronomy at the University of Arizona, has won numerous teaching awards and authored textbooks and nine popular science books, including *Beyond: The Future of Space Travel* and *Einstein's Monsters: The Life and Times of Black Holes.*

science April 6 x 9, 376 pp. 30 illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04766-1



CHRIS IMPEY

"For anyone interested in the search for life beyond Earth, this is the essential book. It's all here: every facet of the modern hunt for biology elsewhere. If this book isn't on your shelf, it should be."

-Seth Shostak, Senior Astronomer, SETI Institute; author of Confessions of an Alien Hunter

"Chris Impey plots an intriguing path from Earth to our future in space. Combining scientific inquiries with personal stories, *Worlds Without End* is an intriguing conversation starter."

—Lisa Kaltenegger, Director, Carl Sagan Institute, Cornell University

"In Worlds Without End, Chris Impey has produced a lively mix of history, science fiction, Shakespearean quotes, profiles of astrobiologists, the latest exoplanet results, and informed speculation about the future of humanity."

- Charles Lineweaver, Senior Fellow, Planetary Science Institute, Australian National University

Ending Epidemics

A History of Escape from Contagion Richard Conniff

How scientists saved humanity from the deadliest infectious diseases, and what we can do to prepare ourselves for future epidemics.

After the unprecedented events of the COVID-19 pandemic, it may be hard to imagine a time not so long ago when deadly diseases were a routine part of life. It is harder still to fathom that the best medical thinking at that time blamed these diseases on noxious miasmas, bodily humors, and divine dyspepsia. This all began to change on a day in April 1676, when a little-known Dutch merchant described bacteria for the first time. Beginning on that day in Delft and ending on the day in 1978 when the smallpox virus claimed its last known victim, *Ending Epidemics* explains how we came to understand and prevent many of our worst infectious diseases—and double average life expectancy.

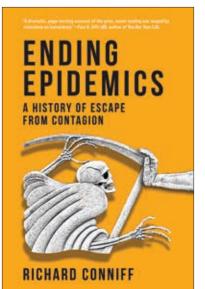
Ending Epidemics tells the story behind "the mortality revolution," the dramatic transformation not just in our longevity, but in the character of childhood, family life, and human society. Richard Conniff recounts the moments of inspiration and innovation, decades of dogged persistence, and, of course, periods of terrible suffering that stir individuals, institutions, and governments to act in the name of public health. Stars of medical science feature in this drama, but lesserknown figures also play a critical role. And while the history of germ theory is central to this story, Ending Epidemics also describes the importance of everything from sanitation improvements and the discovery of antibiotics to the development of the microscope and the syringe—technologies we now take for granted.

Richard Conniff is a National Magazine Award-winning writer for Smithsonian magazine, The Atlantic, National Geographic, and other publications, and a past Guggenheim Fellow. Among his many books are The Species Seekers: Heroes, Fools, and the Mad Pursuit of Life on Earth; Swimming with Piranhas at Feeding Time: My Life Doing Dumb Stuff with Animals; The Natural History of the Rich: A Field Guide; and, most recently, House of Lost Worlds: Dinosaurs, Dynasties, and the Story of Life on Earth. Conniff has been a commentator on NPR's Marketplace and a contributing opinion writer for the New York Times.

health | medicine

April 6 x 9, 368 pp. 25 illus.

US \$34.95T/\$45.95 CAN cloth 978-0-262-04796-8



"Deep property orders for the types of positive memory with technology that process problem. I have by development," STEVE YOUWWOOD, CED or Seams Wanahoo, the orders of Seams Privat

Child

Digital Media's Role in the Ages and Stages of Growing Up



Katie Davis

Technology's Child

Digital Media's Role in the Ages and Stages of Growing Up

Katie Davis

How children engage with technology at each stage of development, from toddler to twentysomething, and how they can best be supported.

What happens to the little ones, the tweens, and the teenagers, when technology—ubiquitous in the world they inhabit—becomes a critical part of their lives? This timely book *Technology's Child* brings much-needed clarity to what we know about technology's role in child development. Better yet, it provides guidance on how to use what we know to help children of all ages make the most of their digital experiences.

From toddlers who are exploring their immediate environment to twentysomethings who are exploring their place in society, technology inevitably and profoundly affects their development. Drawing on her expertise in developmental science and design research, Katie Davis describes what happens when child development and technology design interact, and how this interaction is complicated by children's individual characteristics and social and cultural contexts. Critically, she explains how a self-directed experience of technology—one initiated, sustained, and ended voluntarily—supports healthy child development, especially when it takes place within the context of community support.

Children's experiences with technology—their "screen time" and digital social relationships—have become an inescapable aspect of growing up. This book, for the first time, identifies the qualitative distinctions between different ages and stages of this engagement, and offers invaluable guidance for parents and teachers navigating the digital landscape, and for technology designers charting the way to inhale.

Katie Davis is Associate Professor at the University of Washington Information School, where she is a founding member and Codirector of the UW Digital Youth Lab. She is the coauthor of *The App Generation: How Today's Youth Navigate Identity, Intimacy, Imagination in a Digital World* (with Howard Gardner) and *Writers in the Secret Garden: Fanfiction, Youth, and New Forms of Mentoring* (with Cecilia Aragon).

parenting | technology March 5 1/4 x 8, 336 pp. 1 illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04696-1

The New Designer

Rejecting Myths, Embracing Change

Manuel Lima

A bold call to reject damaging design myths and instead build an ethical design practice that helps build a better world.

The choices made by designers have a significant impact on the world. Yet so much of the discourse on design focuses on aesthetics rather than ethics. In *The New Designer*, acclaimed designer Manuel Lima aims to change this by challenging common myths and preconceptions about what comprises good design. He argues that designers must take responsibility for the personal, societal, cultural, and environmental impact of their work, rather than simply following a normalized template.

As he covers fields ranging from graphic design to industrial design to user experience design, Lima identifies the major steps that designers must take to be a force for good in the world. Rather than sticking to outmoded ideas about perfectionism and individual genius, designers must work together to tackle some of the most challenging questions of the twenty-first century. How do you make room for humanity, with all its wonderous variations, in a society increasingly driven by metrics, algorithms, and profit? How can ecologically responsible designers consider a product's entire life cycle and look well into the future? And how can designers better respond to a community's local needs while taking advantage of global networks?

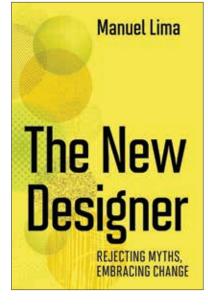
Blending approaches derived from ethics, psychology, economics, and ecology, *The New Designer* is a vital, field-changing treatise that will appeal to any reader who seeks to understand design's massive impact on the contemporary world.

Manuel Lima is an internationally renowned designer and author of three bestsellers: *The Book of Circles, The Book of Trees,* and *Visual Complexity*. Named "one of the 50 most creative and influential minds" by *Creativity* magazine, he is the founder of VisualComplexity.com and a fellow of the Royal Society of Arts.

design

May 6 x 9, 232 pp.

US \$24.95T/\$33.95 CAN cloth 978-0-262-04763-0



Athena Unbound

Why and How Scholarly Knowledge Should Be Free for All

Peter Baldwin

A clear-eyed examination of the open access movement: past history, current conflicts, and future possibilities.

Open access (OA) could one day put the sum of human knowledge at our fingertips. But the goal of allowing everyone to read everything faces fierce resistance. In *Athena Unbound*, Peter Baldwin offers an up-to-date look at the ideals and history behind OA, and unpacks the controversies that arise when the dream of limitless information slams into entrenched interests in favor of the status quo. In addition to providing a clear analysis of the debates, Baldwin focuses on thorny issues such as copyright and ways to pay for "free" knowledge. He also provides a roadmap that would make OA economically viable and, as a result, advance one of humanity's age-old ambitions.

Baldwin addresses the arguments in terms of disseminating scientific research, the history of intellectual property and copyright, and the development of the university and research establishment. As he notes, the hard sciences have already created a funding model that increasingly provides open access, but at the cost of crowding out the humanities. Baldwin proposes a new system that would shift costs from consumers to producers and free scholarly knowledge from the paywalls and institutional barriers that keep it from much of the world.

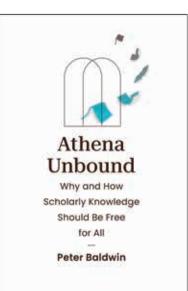
Rich in detail and free of jargon, *Athena Unbound* is an essential primer on the state of the global open access movement.

Peter Baldwin is Professor of History at UCLA, and Global Distinguished Professor at NYU. His recent books are *Command* and Persuade: Crime, Law, and the State across History (MIT Press); Fighting the First Wave: Why the Coronavirus Was Tackled So Differently across the Globe; and The Copyright Wars: Three Centuries of Trans-Atlantic Battle. He serves on the boards of the New York Public Library, the American Council of Learned Societies, the Wikimedia Endowment, the Central European University, the Danish Institute of Advanced Studies, and as chair of the Board of the Center for Jewish History.

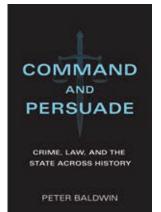
education | law

March 6 x 9, 416 pp.

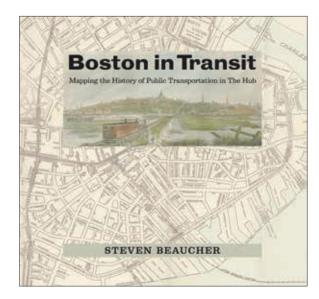
US \$35.00T/\$45.95 CAN cloth 978-0-262-04800-2



Also available



978-0-262-54602-7



Boston in Transit

Mapping the History of Public Transportation in The Hub

Steven Beaucher

A richly illustrated story of public transit in one of America's most historic cities, from public ferry and horse-drawn carriage to the MBTA.

A lively tour of public transportation in Boston over the years, *Boston in Transit* maps the complete history of the modes of transportation that have kept the city moving and expanding since its founding in 1630—from the simple ferry serving an English settlement to the expansive network

of the Massachusetts Bay Transportation Authority, or MBTA. The story of public transit in Boston—once dubbed the Hub of the Universe—is a journey through the history of the American metropolis.

With a remarkable collection of maps and architectural and engineering drawings at hand, Steven Beaucher launches his account from the landing where English colonists established that first ferry, carrying passengers between what is now Boston's North End and Charlestown—and sparing them what had been a two-day walk around Boston Harbor. In the 1700s, horse-drawn coaches appeared on the scene, connecting Boston and Cambridge, with the bigger, better Omnibus soon to follow. From horse-drawn coaches, horse-drawn railways evolved, making way for the electric streetcar networks that allowed the city's early suburbs to sprout—culminating in the multimodal, regional public transportation network in place in Boston today.

With photographs, brochures, pamphlets, guidebooks, timetables, and tickets, *Boston in Transit* creates a complete picture of the everyday experience of public transportation through the centuries. At once a practical reference, local history, and travelogue, this book will be cherished by armchair tourists, day-trippers, and serious travelers alike.

Steven Beaucher is an architect and the cofounder and proprietor of WardMaps LLC, a retail store in Cambridge, Massachusetts, specializing in antique maps and public transportation artifacts of the nineteenth and twentieth centuries.

history | transportation March 11 x 10 1/2, 592 pp. 942 color illus.

US \$70.00T/\$92.00 CAN cloth 978-0-262-04807-1

Gallup

Roswell Angier and Susan Hawley

afterword by Ramona Emerson

A poignant artistic collaboration, showing how history and mythology converge in the Navajo communities in and around Gallup, New Mexico.

Taking a fresh approach to personal documentary, *Gallup* combines Roswell Angier's photographs, Susan Hawley's watercolor paintings, and both of their

journal entries, as they explore the time they spent in Gallup, New Mexico in the late 1970s and early 1980s. Gallup is a place where histories and myths meet, and Angier and Hawley work through diverse media to portray a place where many versions of Native and American life have flowed together. They show that Gallup is both beautiful and difficult to know, in a way that reflects the long shadow of Native American disenfranchisement.

Sober about social realities, Angier and Hawley nevertheless find lighthearted humor in the daily life of Gallup. They take us from the Navajo creation story to motels, from a rodeo to an inherited suitcase of Plains Indian artifacts. Through images, we travel from Canyon de Chelly to Chaco Canyon, from fast food joints to bars. Beyond the picturesque clichés offered by the desert, full of Airstream trailers and sunsets, we find struggles over personal and group identity at one of America's crossroads, where a billboard once read "Welcome to the Indian Capital of the World."

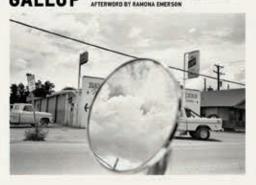
Roswell Angier is a photographer who has exhibited and taught widely, including at the School of the Museum of Fine Arts at Tufts University. His previous books include *Train Your Gaze: A Practical and Theoretical Guide to Portrait Photography.* **Susan Hawley** is a painter who has exhibited at the Institute of Contemporary Art in Boston and held artistic residences at the Wurlitzer Foundation in Taos, New Mexico and at the Michael Karolyi Foundation in Vence, France.

photography | art

June 8 1/4 x 6 1/4, 208 pp. 30 color illus., 81 b&w photos

US \$39.95T/\$53.95 CAN cloth 978-0-262-04771-5

GALLUP ROSWELL ANGIER AND SUSAN HAWLEY

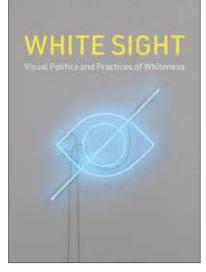


"Roswell Angier is a profoundly under-recognized photographer. His works have everything to do with fragile borders in vertiginously enormous landscapes. These borders. like the intimacies that circulate through images and text, are deeply precarious. Susan Hawley's paintings beautifully weave a hallucinogenic image world with the streetscapes that are recognizable from Angier's photographs. The result is the evocation of a border that is also a palimpsest. Not only a border across a freeway, but between entirely different epistemologies."

— David Joselit, professor of Art, Film, and Visual Studies, Harvard University

"Gallup is an extraordinary book. The combination of Angier's arresting black-and-white photographs and Hawley's remarkable watercolors is like looking at the region through stereoscopic lenses. There is simply nothing like this out there."

— Janet Catherine Berlo, Professor of Art History and Visual and Cultural Studies Emerita, University of Rochester Nicholas Mirzoeff



White Sight

Visual Politics and Practices of Whiteness

Nicholas Mirzoeff

From the author of *How to See the World* comes a new history of white supremacist ways of seeing — and a strategy for dismantling them.

White supremacy is not only perpetuated by laws and police but also by visual culture and distinctive ways of seeing. Nicholas Mirzoeff argues that this form of "white sight" has a history. By understanding that white sight was not always common practice, we can devise better ways to dismantle it. Spanning centuries across this wide-ranging text, Mirzoeff connects Renaissance innovations—from the invention of perspective and the erection of Apollo statues as monuments to (white) beauty and power to the rise of racial capitalism dependent on slave labor—with ever-expanding surveillance technologies to show that white sight creates an oppressively racializing world, in which subjects who do not appear as white are under constant threat of violence.

Analyzing recent events like the Black Lives Matter protests following the murder of George Floyd and the Central Park birdwatching incident, Mirzoeff suggests that we are experiencing a general crisis of white supremacy that presents both opportunities for and threats to social justice. If we do not seize this moment to dismantle white sight, then white supremacy might surge back stronger than ever. To that end, he highlights activist interventions to strike the power of the white heteropatriarchal gaze. *White Sight* is a vital handbook and call to action for anyone who refuses to live under white-dominated systems and is determined to find a just way to see the world.

Nicholas Mirzoeff is Professor of Media, Culture, and Communication at New York University. His many books include the best-selling *How to See the World* and *The Right to Look*, and his writing has appeared in the *Guardian*, the *New York Times*, *Hyperallergic*, and the *Los Angeles Review of Books*.

media studies | cultural studies

February 6 x 9, 352 pp. 66 color illus., 10 b&w illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04767-8 "An urgent handbook for how to see, to unlearn, and to dismantle the infrastructures of cultural whiteness. *White Sight* is destined to become an essential text in the transdisciplinary study of visual culture and white supremacy."

- Dan Hicks, Professor of Contemporary Archaeology, University of Oxford; author of The Brutish Museums

"Incisively narrating the processes through which violent white ontologies are spatialized, this text is an essential complement to anticolonial attempts to re-visualize the material world."

-Zoé Samudzi, Assistant Professor in Photography, Rhode Island School of Design

"Urgent, thoughtful, provocative. In short, everything you would expect from Mirzoeff. He reminds us of our power to see a more just world."

-Alexis L. Boylan, Associate Professor in the Art and Art History Department and the Africana Studies Institute, University of Connecticut; author of *Visual Culture* (MIT Press)

Sol LeWitt's Studio Drawings in the Vecchia Torre

Rye Dag Holmboe

with photographs by Joschi Herczeg Beneat Rye Dag Holmboe

An intimate look at American artist Sol LeWitt's masterpiece of conceptual art, drawn on the walls of a medieval tower in Italy.

In 1976, Sol LeWitt made a large group of pencil drawings on the internal walls of the Vecchia Torre, a medieval tower in the Umbrian town of Spoleto, Italy. These fragile drawings, made on walls that are susceptible to degradation, have rarely been seen and never been documented, yet they represent one of LeWitt's major works and a milestone in American conceptual art. This groundbreaking volume brings together an extended essay on LeWitt's work by art historian Rye Dag Holmboe and a series of 60 photographic plates of the drawings by artist Joschi Herczeg, giving readers an intimate experience of this singular, site-specific work.

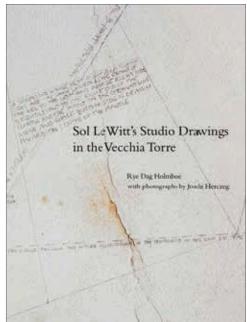
A visual archive, this book situates LeWitt's provisional, material, bodily, and highly personal drawings in their historical, biographical, and theoretical contexts. The result is nothing less than a reconsideration of LeWitt's lifework. At once a work of conservation and a reflection on the relationship between drawing and architecture, *Sol LeWitt's Studio Drawings in the Vecchia Torre* sheds new and welcome light on an unseen masterpiece.

Rye Dag Holmboe is Leverhulme Early Career Research Fellow in the History of Art at the University of East Anglia. He is also a candidate member of the British Psychoanalytic Association.

art

April 7 1/2 x 10, 128 pp. 63 color photos, 16 color illus.

US \$49.95T/\$65.95 CAN cloth 978-0-262-04762-3



Building a New Leadership Ladder

Transforming Male-Dominated Organizations to Support Women on the Rise

Carol J. Geffner

Strategies for transforming workplace cultures to support a new generation of women leaders.

When it comes to the gender gap, it is not enough to ask women to "lean in" and demand promotions and raises. Organizations have an obligation to level up and provide women with more opportunities for advancement. In this book, leadership and governance expert Carol Geffner makes a strong case that for women to reach their full potential, workplaces and their leaders must take a more proactive role in combating gender discrimination.

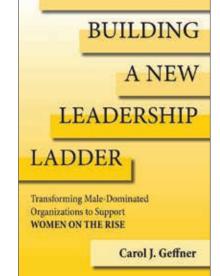
Based on over 200 hours of interviews with women leaders in the United States and abroad, *Building a New Leadership Ladder* demonstrates that even when women are promoted to leadership positions, they are rarely given access to the same support networks as their male colleagues. Covering sectors as diverse as higher education, health care, law enforcement, and the military, the book identifies common strategies that all organizations can use to remove obstacles for women's advancement.

More than a how-to guide on how women can ascend to the top, *Building a New Leadership Ladder* is a bold call to action for organizations and their leaders to proactively foster the conditions under which women's efforts to rise up are consistently recognized and rewarded.

Carol J. Geffner is Professor of the Practice of Governance and Management at the University of Southern California's Sol Price School of Public Policy, where she directs the Executive Master of Leadership Program. Prior to joining USC, Geffner was a member of the C-Suite for Freedom Communications and was the founder and president of Newpoint Healthcare Advisors, LLC.

business

February 6 x 9, 200 pp. **US \$29.95T/\$39.95 CAN cloth** 978-0-262-04738-8

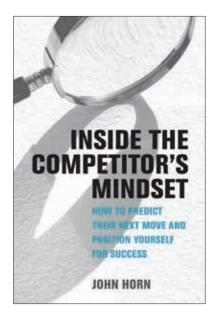


"My head was nodding in agreement the entire time I was reading this book. As women have faced major setbacks in the labor market in the last several years, this book provides timely solutions for organizations seeking to make their workplaces more welcoming to women. It is time for leaders to take action, and this book shows us how."

— Laura Yeager, Major General, United States Army National Guard, retired

"In this book, we hear directly from women leaders who have bumped up against the glass ceiling and who have helped other women climb up the ladder. Their lessons are essential for us to create the workplaces of the future—and the present!"

-Julie Castro Abrams, Managing Partner, How Women Invest; CEO, How Women Lead



Inside the Competitor's Mindset

How to Predict Their Next Move and Position Yourself for Success

John Horn

When it comes to competitive strategy, knowing what your competition is doing is good; understanding why they do what they do and predicting what they are going to do next is best.

Leading companies invest a lot of resources into competitive intelligence, so why are they still caught off guard by the actions and reactions of their competitors?

In *Inside the Competitor's Mindset*, John Horn shares proven techniques to help businesses think like the competition and understand why they act the way they do. The keys to unlocking this mindset are cognitive empathy and a strategic approach to competitive insight that focuses on the *why* of a competitor's move, and not just on what happened.

Inside the Competitor's Mindset presents a systematic approach to competitive intelligence that starts with three frameworks to get inside the competitor's mindset, predict their reactions to your moves, and assess whether the competition is getting ready for a spontaneous move of their own. Horn also demonstrates the importance of collecting forwardlooking, predictive data; explains how to use war games, Black Hat exercises, mock negotiations, and premortems to build competitive insight; and makes the case for creating a dedicated competitive insight function within the organization.

When every move matters, staying a step ahead of the competition is critical. *Inside the Competitor's Mindset* prepares leaders from any industry to be ready when it is time to act (and react) in the competitive market.

John Horn is Professor of Practice in Economics at the Olin Business School at Washington University in St. Louis. His microeconomics, macroeconomics, and global economics courses are informed by his nine years of work on competitive strategy, war gaming workshops, and corporate strategy exercises with the Strategy Practice of McKinsey & Company. He has published numerous articles about applying behavioral economics and competitive insight in business strategy.

business

April 6 x 9, 296 pp. 4 illus.

US \$34.95T/\$45.95 CAN cloth 978-0-262-04788-3

Management on the Cutting Edge series, published in cooperation with *MIT Sloan Management Review*

Reading this book will empower you to

- learn where to look for competitive insights, regardless of your industry, whether you (or your competitors) are a public or private company;
- anticipate how competitors will react to moves you make, and whether they are about to make a bold first move;
- apply lessons from archaeologists, paleontologists, NICU nurses, and homicide detectives to better gather and analyze information when you can't ask direct questions;
- design and operate strategic exercises to gain competitive insight; and
- build up a competitive insight function within your organization.

Workforce Ecosystems

Reaching Strategic Goals with People, Partners, and Technologies

Elizabeth J. Altman, David Kiron, Jeff Schwartz, and Robin Jones

A pioneering guide to understanding and leading workforce ecosystems, which include not only traditional employees, contractors, and gig workers, but also partner and complementor organizations that work with companies to accomplish enterprise and individual goals.

Who is your workforce? This was a simple question when most organizations focused on hiring full- and part-time employees, but now organizations engage with both internal and external collaborators including subcontractors, freelancers, app developers, marketplace sellers, and others. As technology enables new, more efficient forms of working, and roles become more project- and outcomes-based, workforces are evolving into workforce ecosystems requiring updated strategies, leadership, and management practices.

Workforce Ecosystems by Elizabeth Altman, David Kiron, Jeff Schwartz, and Robin Jones is an essential research-driven framework for leading these complex, interconnected workforces. Drawing on case studies, worldwide surveys, and extensive interviews with C-suite executives and senior leaders from Amazon, IBM, Mayo Clinic, NASA, Nike, Roche, Unilever, the U.S. Army, Walmart, and others, the authors explore what workforce ecosystems are and how to navigate their unique challenges and opportunities

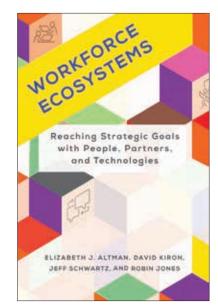
Elizabeth Altman is Associate Professor of Management, Manning School of Business, University of Massachusetts Lowell. David Kiron is Editorial Director, *MIT Sloan Management Review*. Jeff Schwartz is VP, Insights and Impact, Gloat, and Adjunct Professor, Columbia Business School. He is the author of *Work Disrupted*. Robin Jones is Principal, Workforce Transformation Leader, Deloitte US.

business April

6 x 9, 240 pp. 16 illus.

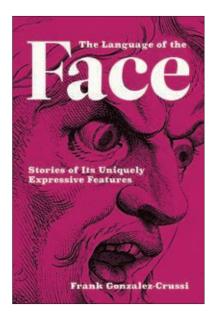
US \$29.95T/\$39.95 CAN cloth 978-0-262-04777-7

Management on the Cutting Edge series, published in cooperation with *MIT Sloan Management Review*



Practical and field-tested, *Workforce Ecosystems* will prepare leaders to

- identify distinguishing characteristics of workforce ecosystems,
- take advantage of the increasing relevance of workforce ecosystems as the world becomes more interconnected and technology-enabled,
- refine business strategies to incorporate workforce ecosystems,
- focus leadership, management practices, and technologies to leverage workforce ecosystems,
- and traverse the ethical, societal, and public policy considerations of workforce ecosystems.



The Language of the Face

Stories of Its Uniquely Expressive Features Frank Gonzalez-Crussi

A broad and riveting cultural history of physiognomy, exploring how the desire to divine deeper meaning from our looks has compelled humans for millennia.

How do you read a face? For thousands of years, artists, philosophers, and scientists have explored the question of what our outer appearance might reveal about our inner selves. In *The Language of the Face*, a marvelously comprehensive exploration of the pseudoscience of physiognomy, Frank Gonzalez-Crussi considers over a millennium's worth of primary sources to paint a splendid portrait of the face's cultural symbology.

Gonzalez-Crussi, an acclaimed pathologist and writer, transcends disciplines with a singular balance of depth and levity. Blending literary analysis of both ancient and modern texts with the insights of medical anthropology, his narrative ranges from an investigation into "nasal semiotics"-a subject whose legacy persists most destructively in myths of racial typology-to equally astute analyses of the thrills of the erotic kiss, the diagnostic art of astrology, and the enlightening qualities of supposed ugliness. While our appearances may ultimately be no more than surface-level signifiers of identity, Gonzalez-Crussi's work is anything but superficial in its treatment of the consummately human urge to find profound meaning amidst seemingly arbitrary attributes. As rigorously researched as it is wildly entertaining, The Language of the Face is a vibrant contribution to both the emerging field of medical humanities and the popular understanding of aesthetics and physiology at large.

Frank Gonzalez-Crussi is Professor Emeritus of Pathology at Northwestern University's Feinberg School of Medicine, where he specialized in pediatric pathology. He is the author of 22 books in both English and Spanish, including *The Body Fantastic* (MIT Press).

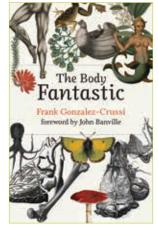
science | historv

March 6 x 9, 256 pp. 36 illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04753-1 "This wide ranging, beautifully written book traces the fascinating and often absurd history of physiognomy, a pseudo-science in which features of the face are thought to reveal inner character. Droll, erudite, and full of bizarre detail, Gonzalez-Crussi's latest is a captivating and idiosyncratic take on a perennially fascinating topic."

- Joanna Ebenstein, Founder and Creative Director, Morbid Anatomy

Also available



978-0-262-04588-9

We Are All Monsters

How Deviant Organisms Came to Define Us

Andrew Mangham

How the monsters of nineteenth-century literature and science came to define us.

"Was I then a monster, a blot upon the earth, from which all men fled and whom all men disowned?" In *We Are All Monsters*, Andrew Mangham offers a fresh interpretation of this question uttered by Frankenstein's creature in Mary Shelley's 1818 novel in an expansive exploration of how nineteenth-century literature and science recast the monster as vital to the workings of nature and key to unlocking the knowledge of all life forms and processes. Even as gothic literature and freak shows exploited an abiding association between abnormal bodies and horror, amazement, or failure, the development of monsters in the ideas and writings of this period showed the world to be dynamic, varied, plentiful, transformative, and creative.

In works ranging from Comte de Buffon's interrogations of humanity within natural history to Hugo de Vries's mutation theory, and from Shelley's artificial man to fin de siècle notions of body difference, Mangham expertly traces a persistent attempt to understand modern subjectivity through a range of biological and imaginary monsters. In a world that hides monstrosity behind theoretical and cultural representations that reinscribe its otherness, this enlightened book shows how innovative nineteenth-century thinkers dismantled the fictive idea of normality and provided a means of thinking about life in ways that check the reflexive tendency to categorize and divide.

Andrew Mangham is Professor of Victorian Literature and Medical Humanities at the University of Reading, UK. He is the author of *The Science of Starving in Victorian Literature, Medicine, and Political Economy, Dickens's Forensic Realism, and Violent Women and Sensation Fiction.*

literary criticism | science February 6 x 9, 344 pp. 9 illus.

US \$32.95T/\$43.95 CAN cloth 978-0-262-04752-4

We Are All Monsters

How Deviant Organisms Came to Define Us



"For those fascinated by Nature's monsters, her games and experiments on the shelves of medical museums, and uncanny fiction, Andrew Mangham is the perfect guide through labyrinthine nineteenth-century visions of anomalous bodies, both scientific and literary."

- Eleanor Crook, Anatomical Sculptor and Artist in Residence, Gordon Museum of Pathology, Kings College London; Morbid Anatomy European Attaché

"We Are All Monsters is a prescient work of original scholarship and thought that engages with the ongoing discourse of the last decade concerning the Postmillennial Gothic. Professor Andrew Mangham has not only brought science and the medical humanities into this crucial discussion about how we (should) define the monstrous, but he's shown us that our current Gothic zeitgeist began, in fact, over two centuries ago in the medical sciences!"

-John Edgar Browning, professor of Liberal Arts at the Savannah College of Art and Design; coeditor, Speaking of Monsters: A Teratological Anthology

Ghost Particle

In Search of the Elusive and Mysterious Neutrino

Alan Chodos and James Riordon

foreword by Don Lincoln

The fascinating story of science in pursuit of the ghostly, ubiquitous subatomic particle the neutrino.

Isaac Asimov once observed of the neutrino: "The only reason scientists suggested its existence was their need to make calculations come out even. And yet the nothing-particle was not a nothing at all." In fact, as one of the most enigmatic and most populous particles in the universe—about 100 trillion are flying through you every second—the neutrino may hold the clues to some of our deepest cosmic mysteries. In *Ghost Particle*, Alan Chodos and James Riordon recount the dramatic history of the neutrino—from the initial suggestion that the particle was merely a desperate solution to a puzzle that threatened to undermine the burgeoning field of particle physics to its modern role in illuminating the universe via neutrino telescopes.

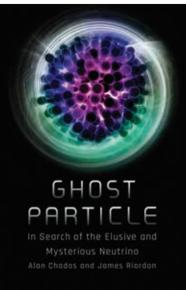
Chodos and Riordon are deft and engaging guides as they conduct readers through the experiences of intrepid scientists and the challenges they faced, and continue to face, in their search for the ghostly neutrino. Along the way, the authors provide expert insight into the significance of neutrino research from the particle's first, momentous discovery to recent, revolutionary advances in neutrino detection and astronomy. Chodos and Riordon describe how neutrinos may soon provide clues to some of the biggest questions we encounter today, including how to understand the dark matter that makes up most of the universe—and why anything exists in the universe at all.

Alan Chodos is Research Professor of Physics at the University of Texas at Arlington, former Director of the Yale Center for Theoretical Physics, and former Associate Executive Officer of the American Physical Society, where he is a Fellow. James Riordon is a science journalist who has written for Science News, Scientific American, New Scientist, Popular Science, the Washington Post, Science Magazine, Ad Astra, Physics Today, and Analytical Chemistry. He is a past president of the DC Science Writers Association and cofounder of the Southwest Science Writers Association.

science

February 6 x 9, 320 pp. 20 illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04787-6

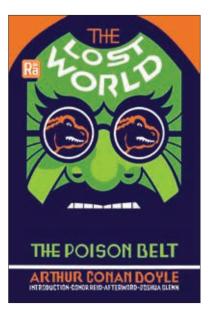


"In the time it takes to read this blurb, over 500 trillion neutrinos will pass harmlessly through your body. This readable and informative book will introduce you to state-of-the-art particle physics and some of the biggest mysteries of the universe."

-James Kakalios, Physics Professor at the University of Minnesota; author of The Amazing Story of Quantum Mechanics

"Neutrinos are the final frontier of the known particles. They exist, but remain mysterious in many ways. *Ghost Particle* is an ideal introduction to, and captivating history of, these almost-invisible particles that are zipping through our bodies all the time."

– Sean Carroll, author of The Biggest Ideas in the Universe: Space, Time, and Motion



The Lost World and The Poison Belt

Arthur Conan Doyle

introduction by Conor Reid afterword by Joshua Glenn

A heart-stopping adventure tale featuring a brilliant scientist—as insufferably pompous as Doyle's most famous character—and his unlikely trio, as well as its apocalyptic sequel.

In 1912, the creator of Sherlock Holmes introduced his readers to yet another genius adventurer, Professor Challenger, who in his very first outing would journey to South America in search of . . . an isolated plateau crawling with iguanodons and ape-men! A smash hit, Doyle's proto-science fiction thriller would be adapted twice by Hollywood filmmakers, and it would go on to influence everything from *Jurassic Park* to the TV show *Land of the Lost.* Its 1913 sequel, *The Poison Belt*, finds Challenger and his dino-hunting comrades trapped in an oxygenated chamber as the entire planet passes through a lethal ether cloud.

Arthur Conan Doyle (1859–1930) was a Scottish physician and author who in 1887 introduced Sherlock Holmes, arguably the best-known fictional detective. He also wrote poetry, historical novels, influential gothic short stories, and more. Doyle's proto-sf series of Professor Challenger adventures include the novels *The Lost World* (1912), *The Poison Belt* (1913), and *The Land of Mist* (1926), and the short stories "When the World Screamed" (1928) and "The Disintegration Machine" (1929). **Conor Reid** is a podcaster and writer from Ireland. He has published widely on popular fiction and science, including *The Science and Fiction of Edgar Rice Burroughs* (2018). Joshua Glenn is a consulting semiotician and editor of the websites HiLobrow and Semiovox. The first to describe 1900–1935 as science fiction's "Radium Age," he is editor of the MIT Press's series of reissued proto-sf stories from that period.

science fiction

February 51/4 x 7 3/4, 448 pp.

US \$19.95T/\$25.95 CAN paper 978-0-262-54525-9

Radium Age series

"Highly interesting adventure of a sort to stir the pulse and arouse the wonder of even the jaded novel reader."

-New York Times (1912)

"At once one of the most realistic and one of the most romantic of [Doyle's] books."

-The Living Age (1912)

"They who neglect to read it will have missed a highly entertaining flight of the Doyle imagination."

-New York Evening Sun (1912)

Theodore Savage

Cicely Hamilton

introduction by Susan R. Grayzel

From one of the earliest feminist science fiction writers, a novel that envisions the fall of civilization—and the plight of the modern woman in a post-apocalyptic wilderness.

When war breaks out in Europe, British civilization collapses overnight. The ironically named protagonist must learn to survive by his wits in a new Britain. When we first meet Savage, he is a complacent civil servant, primarily concerned with romancing his girlfriend. During the brief war, in which both sides use population displacement as a terrible strategic weapon, Savage must battle his fellow countrymen. He shacks up with an ignorant young woman in a forest hut—a kind of inverse Garden of Eden, where no one is happy. Eventually, he sets off in search of other survivors . . only to discover a primitive society where science and technology have come to be regarded with superstitious awe and terror.

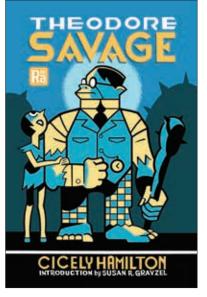
A pioneering feminist, Hamilton offers a warning about the degraded state of modern women, who being "unhandy, unresourceful, superficial"—would suffer a particularly sad fate in a postapocalyptic social order.

Cicely Hamilton (1872–1952) was an Anglo-Irish actress, author, and feminist campaigner best known for her 1909 treatise *Marriage as a Trade*. Her prewar plays include *Diana of Dobson's* (1908) and *How the Vote Was Won* (1909). After working in the north of France during WWI and witnessing how its violence affected civilians, she was inspired to write *Theodore Savage* (1922), a proto-sf novel presciently foregrounding modern warfare's destructive power.

Susan R. Grayzel is Professor of History at Utah State University, where she researches and teaches about modern European history, women's and gender history, the history of the world wars, and war and culture. Her publications in these areas include *Women's Identities at War* (1999) and *At Home and Under Fire* (2012). Her latest book is *The Age of the Gas Mask: How British Civilians Faced the Terrors of Total War* (2022).

science fiction February 51/4 x 7 3/4, 276 pp.

US \$19.95T/\$25.95 CAN paper 978-0-262-54522-8 Radium Age series



"Miss Hamilton always writes forcibly, and her present novel deals with the heart-shaking effects of the next war. It might, indeed, be used as a tract to convey an awful warning...."

- The Spectator (1922)

"Miss Hamilton has spun so finely with the intimate fibres of human emotion and thought that the whole effect is startlingly real."

— The Bookman (1922)

"Terror falls from the skies, and within a few months England has become a collection of small tribes living separately and brutishly, tilling the soil and building hutments."

— The Fortnightly Review (1924)

"A particularly effective and chilling version of a theme that dominates British speculative fiction between the wars."

-Neil Barron, *Anatomy of Wonder*, ed.

Espionage

A Concise History

Kristie Macrakis

A concise introduction to the history and methods of espionage, illustrated by spy stories from antiquity to today's high-tech world.

Espionage is one of the most secret of human activities. It is also, as the popularity of spy stories suggests, one of the most intriguing. This book pulls the veil back on the real world of espionage, revealing how spying actually works. In a refreshingly clear, concise manner, Kristie Macrakis guides readers through the shadowy world of espionage, from the language and practice of spycraft to its role in international politics, its bureaucratic underpinnings, and its transformation in light of modern technology.

Espionage is a mirror of society and human foibles with the added cloak of secrecy and deception. Accordingly, *Espionage* traces spying all the way back to antiquity, while also moving beyond traditional accounts of military and diplomatic intelligence to shine a light on industrial espionage and the new techno-spy. As thorough—and thoroughly readable as it is compact, the book is an ideal introduction to the history and anatomy of espionage.

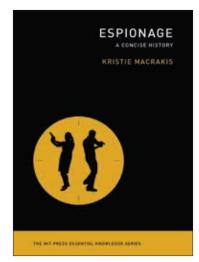
Kristie Macrakis was Professor of History in the School of History and Sociology at Georgia Tech. She was the author of many books, including *Seduced by Secrets* and *Prisoners, Lovers, and Spies*. She passed away in November 2022.

history | political science

February 5 x 7, 216 pp. 5 illus.

US \$16.95T/\$22.95 CAN paper 978-0-262-54502-0

The MIT Press Essential Knowledge series

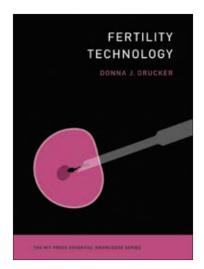


Fertility Technology

Donna J. Drucker

A concise overview of fertility technology—its history, practical applications, and ethical and social implications around the world.

In the late 1850s, a physician in New York City used a syringe and glass tube to inject half a drop of sperm into a woman's uterus, marking the first recorded instance of



artificial insemination. From that day forward, doctors and scientists have turned to technology in ever more innovative ways to facilitate conception. *Fertility Technology* surveys this history in all its medical, practical, and ethical complexity, and offers a look at state-ofthe-art fertility technology in various social and political contexts around the world.

Donna J. Drucker's concise and eminently readable account

introduces the five principal types of fertility technologies used in human reproduction—artificial insemination; ovulation timing; sperm, egg, and embryo freezing; in vitro fertilization; and IVF in uterine transplants—discussing the development, manufacture, dispersion, and use of each. Geographically, it focuses on countries where innovations have emerged and countries where these technologies most profoundly affect individuals and population policies. Drucker's wide-ranging perspective reveals how these technologies, used for birth control as well as conception in many cases, have been critical in shaping the moral, practical, and political meaning of human life, kinship, and family in different nations and cultures since the mid-nineteenth century.

Donna J. Drucker is Assistant Director of Scholarship and Research Development at the Columbia University School of Nursing. She is the author of Contraception: A Concise History (see page 39), The Classification of Sex: Alfred Kinsey and the Organization of Knowledge, and The Machines of Sex Research: Technology and the Politics of Identity, 1945–1985.

health

March | 5 x 7, 256 pp. | 11 illus.

US \$16.95T/\$22.95 CAN paper 978-0-262-54469-6

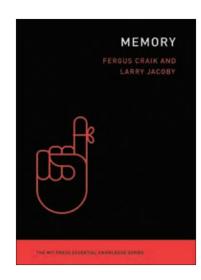
The MIT Press Essential Knowledge series

Memory

Fergus Craik and Larry Jacoby

A short, accessible primer on human memory, its workings, feats, and flaws, by two leading psychological researchers.

Why do we vividly recall a traumatic childhood event but forget where we left our keys five minutes ago? How can a scent take us back fifty years while a colleague's name eludes



us? In this compact introduction, two leading psychological researchers describe memory—how it works and why it sometimes doesn't; how it can be tricked, trained, or improved; and what changes with time.

In a manner as engaging as it is informative, Fergus Craik and Larry Jacoby explain the strengths and weaknesses of memory. They trace evolving ideas about memory's function and present a down-to-

earth account of modern views. Citing the latest research, they outline the processes for acquiring and retrieving memories and explore the distinction between conscious and unconscious processes. With insights into the workings of the brain, Craik and Jacoby also provide a succinct account of feats and failures of memory, emotion and false memories, and the effects of aging. Their book draws a clear picture, at once broad and concise, of current and classical views of memory, that most essential and often mysterious feature of human life.

Fergus Craik taught in the Department of Psychology at the University of Toronto and then worked at the Rotman Research Institute in Toronto until his retirement. He is a Foreign Honorary Member of the American Academy of Arts and Sciences. Larry Jacoby was a faculty member in the Department of Psychology at Washington University in St. Louis. He is a Member of the American Academy of Arts and Sciences.

science | psychology February | 5 x 7, 272 pp. | 6 illus.

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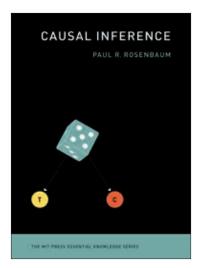
The MIT Press Essential Knowledge series

Causal Inference

Paul R. Rosenbaum

A nontechnical guide to the basic ideas of modern causal inference, with illustrations from health, the economy, and public policy.

Which of two antiviral drugs does the most to save people infected with Ebola virus? Does a daily glass of wine prolong



or shorten life? Does winning the lottery make you more or less likely to go bankrupt? How do you identify genes that cause disease? Do unions raise wages? Do some antibiotics have lethal side effects? Does the Earned Income Tax Credit help people enter the workforce?

Causal Inference provides a brief and nontechnical introduction to randomized experiments, propensity scores, natural experiments, instrumental variables,

sensitivity analysis, and quasi-experimental devices. Ideas are illustrated with examples from medicine, epidemiology, economics and business, the social sciences, and public policy.

Paul R. Rosenbaum is the Robert G. Putzel Professor Emeritus of Statistics and Data Science at the Wharton School of the University of Pennsylvania. He is the author of Observation and Experiment: An Introduction to Causal Inference, Design of Observational Studies, Observational Studies, and Replication and Evidence Factors in Observational Studies.

economics | medicine March | 5 x 7, 224 pp. | 12 illus.

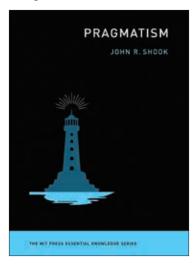
US \$16.95T/\$22.95 CAN paper 978-0-262-54519-8 The MIT Press Essential Knowledge series

Pragmatism

John R. Shook

A concise, reader-friendly overview of pragmatism, the most influential school of American philosophical thought.

Pragmatism, America's homegrown philosophy, has been a major intellectual movement for over a century. Unlike



its rivals, it reaches well beyond the confines of philosophy into concerns and disciplines as diverse as religion, politics, science, and culture. In this concise, engagingly written overview, John R. Shook describes pragmatism's origins, concepts, and continuing global relevance and appeal. With attention to the movement's original thinkers-Charles Sanders Peirce, William James, John Dewey,

and George Herbert Mead—as well as its contemporary proponents, he explains how pragmatism thinks about what is real, what can be known, and what minds are doing. And because of pragmatism's far-reaching impact, Shook shows how its views on reality, truth, knowledge, and cognition coordinate with its approaches to agency, sociality, human nature, and personhood.

John R. Shook teaches philosophy at Bowie State University in Maryland. He is coeditor of *The Blackwell Companion to Pragmatism* and *Neuroscience*, *Neurophilosophy, and Pragmatism*.

philosophy May | 5 x 7, 296 pp.

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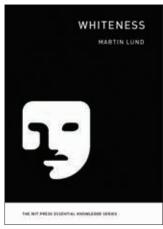
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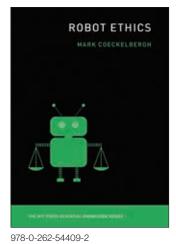
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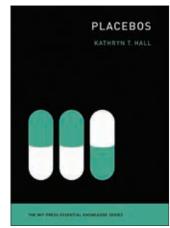


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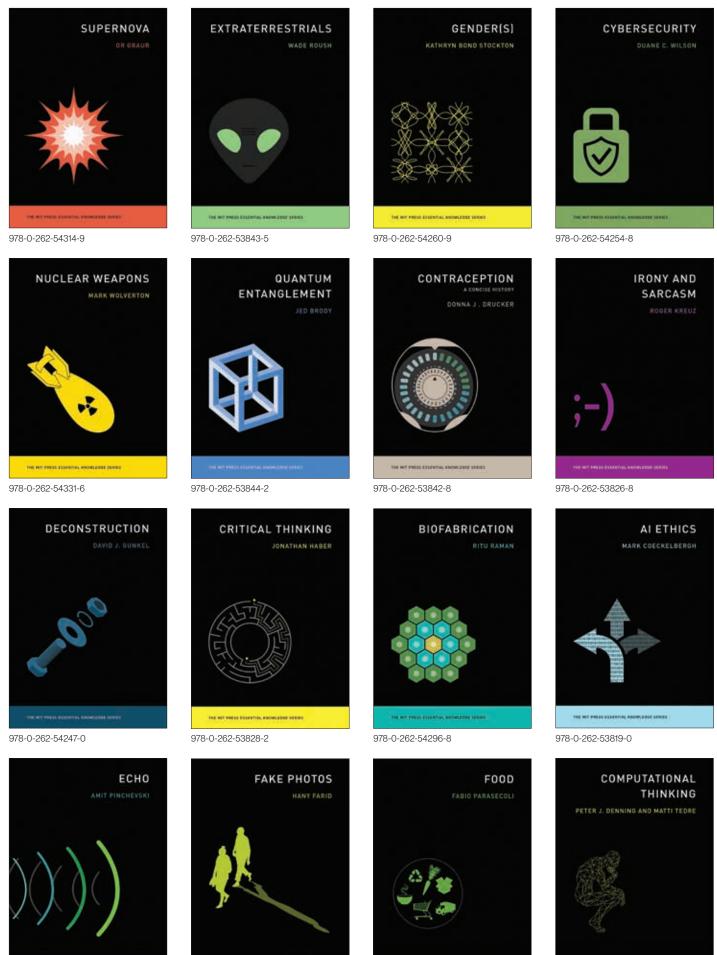




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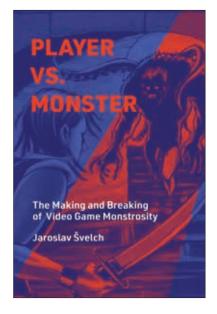
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Player vs. Monster

The Making and Breaking of Video Game Monstrosity

Jaroslav Švelch

A study of the gruesome game characters we love to beat—and what they tell us about ourselves.

Since the early days of video games, monsters have played pivotal roles as dangers to be avoided, level bosses to be defeated, or targets to be destroyed for extra points. But why is the figure of the monster so important in gaming, and how have video games come to shape our culture's conceptions of monstrosity? To answer these questions, *Player vs. Monster* explores the past half-century of monsters in games, from the dragons of early tabletop role-playing games and the pixelated aliens of *Space Invaders* to the malformed mutants of *The Last of Us* and the bizarre beasts of *Bloodborne*, and reveals the common threads among them.

Covering examples from aliens to zombies, Jaroslav Švelch explores the art of monster design and traces its influences from mythology, visual arts, popular culture, and tabletop role-playing games. At the same time, he shows that video games follow the Cold War-era notion of clearly defined, calculable enemies, portraying monsters as figures that are irredeemably evil yet invariably vulnerable to defeat. He explains the appeal of such simplistic video game monsters, but also explores how the medium could evolve to present more nuanced depictions of monstrosity.

Jaroslav Švelch is Assistant Professor in the Department of Media Studies at Charles University, Prague, and Lecturer in the Department of Game Design at the Film and TV School of Academy of Performing Arts in Prague. He is the author of *Gaming the Iron Curtain: How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games.*

games | media studies February 5 1/4 x 8, 240 pp. 30 illus.

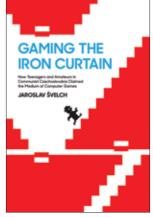
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Playful Thinking series

"Švelch shows us how monsters in video games are created, where they run rampant, what they mean, and how we came to kill them, enabling us to make sense of such monstrosities with intelligence and wit."

- Bernard Perron, Full Professor of Film and Game Studies at Université de Montréal; author of The World of Scary Video Games

Also available



978-0-262-03884-3

Playing Software

Homo Ludens in Computational Culture Miguel Sicart

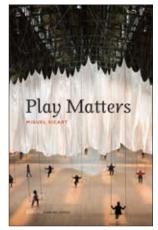
"What qualities do we need to thrive in a world where we're constantly overwhelmed by software systems? Sicart's surprising answer to this important question is: imagination, openness, and love."

- Frank Lantz, Game Designer, NYU Game Center

"In *Playing Software*, Sicart offers a rich, thought-provoking meditation on our entanglements with software, both for good and ill, and how play is crucial to the task of being human. A fascinating book!"

- Clive Thompson, columnist, Wired magazine; author of Coders: The Making of a New Tribe and the Remaking of the World

Also available



978-0-262-53451-2

The play element at the heart of our interactions with computers — and how it drives the best and the worst manifestations of the information age.

Whether we interact with video games or spreadsheets or social media, playing with software shapes every facet of our lives. In *Playing Software*, Miguel Sicart delves into why we play with computers, how that play shapes culture and society, and the threat posed by malefactors using play to weaponize everything from conspiracy theories to extractive capitalism. Starting from the controversial idea that software is an essential agent in the information age, Sicart considers our culture in general—and our way of thinking about and creating digital technology in particular—as a consequence of interacting with software's agency through play.

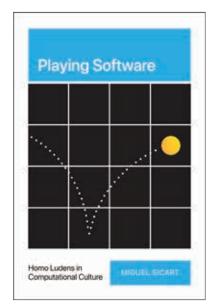
As Sicart shows, playing shapes software agency. In turn, software shapes our agency as we adapt and relate to it through play. That play drives the creation of new cultural, social, and political forms. Sicart also reveals the role of make-believe in driving our playful engagement with the digital sphere. From there, he discusses the cybernetic theory of digital play and what we can learn from combining it with the idea that playfulness can mean pleasurable interaction with human and nonhuman agents inside the boundaries of a computational system. Finally, he critiques the instrumentalization of play as a tool wielded by platform capitalism.

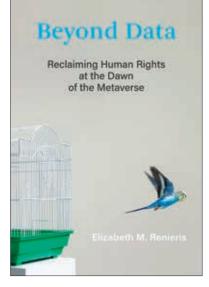
Miguel Sicart is Associate Professor in the Department of Digital Design and Head of the Center for Digital Play at the IT University of Copenhagen. He is the author of *The Ethics of Computer Games*, *Beyond Choices: The Design of Ethical Gameplay*, and *Play Matters* (all published by the MIT Press).

technology

February 6 x 9, 208 pp. 11 illus.

US \$24.95T/\$33.95 CAN cloth 978-0-262-04772-2





Beyond Data

Reclaiming Human Rights at the Dawn of the Metaverse

Elizabeth M. Renieris

Why laws focused on data cannot effectively protect people — and how an approach centered on human rights offers the best hope for preserving human dignity and autonomy in a cyberphysical world.

Ever-pervasive technology poses a clear and present danger to human dignity and autonomy, as many have pointed out. And yet, for the past fifty years, we have been so busy protecting data that we have failed to protect people. In *Beyond Data*, Elizabeth Renieris argues that laws focused on data protection, data privacy, data security, and data ownership have unintentionally failed to protect core human values, including privacy. And, as our collective obsession with data has grown, we have, to our peril, lost sight of what's truly at stake in relation to technological development—our dignity and autonomy as people.

Far from being inevitable, our fixation on data has been codified through decades of flawed policy. Renieris provides a comprehensive history of how both laws and corporate policies enacted in the name of data privacy have been fundamentally incapable of protecting humans. Her research identifies the inherent deficiency of making data a rallying point in itself—data is not an objective truth, and what's more, its "entirely contextual and dynamic" status makes it an unstable foundation for organizing. In proposing a human rights—based framework that would center human dignity and autonomy rather than technological abstractions, Renieris delivers a cleareyed and radically imaginative vision of the future.

At once a thorough application of legal theory to technology and a rousing call to action, *Beyond Data* boldly reaffirms the value of human dignity and autonomy amid widespread disregard by private enterprise at the dawn of the metaverse.

Elizabeth M. Renieris is Senior Research Associate at the Institute for Ethics in AI at Oxford University. A lawyer by training, her academic research focuses on cross-border data governance and the ethical implications of emerging technologies.

technology | political science

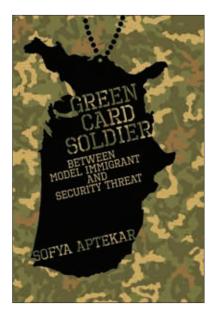
February 6 x 9, 240 pp. 9 illus.

US \$26.95T/\$35.95 CAN cloth 978-0-262-04782-1 "Beyond Data masterfully tracks how we became so vulnerable, where things went wrong, and how to recover. This book is a welcome corrective to the idea that all we need is control over our information."

-Woodrow Hartzog, coauthor of Breached! Why Data Security Law Fails and How to Improve It

"Beyond Data documents policymakers' abject failure to prevent technology from undermining human autonomy for profit, even when core values like democracy and public health are imperiled."

-Roger McNamee, author of the New York Times bestseller Zucked: Waking Up to the Facebook Catastrophe



Green Card Soldier

Between Model Immigrant and Security Threat Sofya Aptekar

An in-depth and troubling look at a little-known group of immigrants—noncitizen soldiers who enlist in the US military.

While the popular image of the US military is one of citizen soldiers protecting their country, the reality is that nearly 5 percent of all first-time military recruits are noncitizens. Their reasons for enlisting are myriad, but many are motivated by the hope of gaining citizenship in return for their service. In *Green Card Soldier*, Sofya Aptekar talks to over seventy noncitizen soldiers from twenty-three countries, including some who were displaced by conflict after the US military entered their homeland. She identifies a disturbing pattern: the US military's intervention in foreign countries drives migration, which in turn supplies the military with a cheap and desperate labor pool—perpetuating the cycle.

As Aptekar discovers, serving in the US military is no guarantee against deportation, and yet the promise of citizenship and the threat of deportation are the carrot and stick used to discipline noncitizen soldiers. Viewed at various times as security threats and members of a model minority, immigrant soldiers sometimes face intense discrimination from their native-born colleagues and superiors. Their stories—stitched through with colonial legacies, white supremacy, exploitation, and patriarchy—show how the tensions between deservingness and suspicion shape their enlistment, service, and identities. Giving voice to this little-heard group of immigrants, *Green Card Soldier* shines a cold light on the complex workings of US empire, globalized militarism, and citizenship.

Sofya Aptekar is Associate Professor of Urban Studies at the City University of New York School of Labor and Urban Studies. She is the author of *The Road to Citizenship*: What Naturalization Means for Immigrants and the United States.

political science

May 6 x 9, 328 pp. 5 illus.

US \$29.95T/\$39.95 CAN cloth 978-0-262-04789-0

Labor and Technology series

#You Know You're Black in France When...

The Fact of Everyday Antiblackness

Trica Keaton

A groundbreaking study about everyday antiblackness and its refusal in an officially raceblind France.

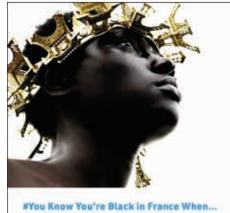
What does it mean to be racialized-as-black in France on a daily basis? *#You Know You're Black in France When...* responds to that question. Under the banner of universalism, France messages a powerful and seductive ideology of blindness to race that disappears blackened people and the antiblackness they experience. As Trica Keaton notes, in everyday life, France is anything but raceblind.

In this interdisciplinary study, drawn from a range of critical scholarship including that of Philomena Essed and Frantz Fanon, Keaton illuminates how b/Black (racialized/politicized) French people distinctly expose and refuse what she calls "raceblind republicanism." By officially turning a blind eye to the specificity of antiblackness, the French state in fact perpetuates it, she argues, along with structural racism. Through daily life, public policies, visual culture, the private lives of individuals and families shattered by police violence, the French courts where many are fighting back, and her own experiences, Keaton charts the troubling dynamics and continuities of antiblackness in French society.

Professor **Trica Keaton** is in the Department of African and African American Studies at Dartmouth College with affiliations in Film and Media Studies and Sociology. Her past books include *Muslim Girls and the Other France*; *Race, Identity Politics, & Social Exclusion, Black Europe and the African Diaspora*; and *Black France/France Noire: The History and Politics of Blackness.*

cultural studies February 7 x 9, 304 pp. 47 color illus., 7 b&w illus.

US \$34.95T/\$45.95 CAN cloth 978-0-262-04778-4



The Fact of Everyday Antiblackness

Trica Keaton

"Once again, Trica Keaton proves that she is one of the most insightful observers of the contradictions that constitute France as a racial state."

-Roderick A. Ferguson, Professor of Women's, Gender, and Sexuality Studies and American Studies, Yale University

"Rather than denouncing individualized racist interactions, Trica Keaton identifies the source of antiblackness in French universalist 'raceblind' republicanism. This is an important message to convey to public authorities and minority communities alike, and an important contribution to the scientific debate."

-Patrick Simon, Senior researcher, National Institute for Demographic Studies in France

Architectures of Spatial Justice

Dana Cuff

A field-defining work that demonstrates how architects are breaking with professional conventions to advance spatial justice and design more equitable buildings and cities.

As state violence, the pandemic, and environmental collapse have exposed systemic inequities, architects and urbanists have been pushed to confront how their actions contribute to racism and the climate crisis—and how they can effect change. Establishing an ethics of spatial justice to lead architecture forward, Dana Cuff shows why the discipline requires critical examination—in relation to not only buildings and the capital required to realize them but privilege, power, aesthetics, and sociality. That is, it requires a reevaluation of architecture's fundamental tenets.

Organized around projects and topics, *Architectures* of Spatial Justice is a compelling blend of theory, history, and applied practice that focuses on two foundational conditions of architecture: its relation to the public and its dependence on capital. The book draws on architectural projects from around the world, with instructive case studies from Chile, Mexico, Japan, and the United States that focus on urban centers, where architecture is most directly engaged with social justice issues.

Emerging from more than two decades of the author's own project-based research, *Architectures of Spatial Justice* examines ethically driven practices that break with professional conventions to correct long-standing inequities in the built environment, uncovering architecture's limits—and its potential.

Dana Cuff is Professor of Architecture and Urban Design and Director and Founder of cityLAB at the University of California, Los Angeles, where she is also the leader of the Urban Humanities Initiative. She is the author of *Architecture: The Story of Practice* and *The Provisional City: Los Angeles Stories of Architecture and Urbanism* (both published by the MIT Press).

architecture

April 6 1/2 x 8 1/2, 304 pp. 73 color illus., 14 b&w illus.

US \$29.95T/\$39.95 CAN paper 978-0-262-54521-1



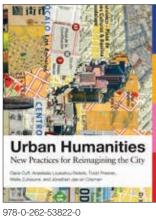
"An inspiring and provocative book that shows how architecture can turn away from its proximity to late capitalism and bend toward social justice."

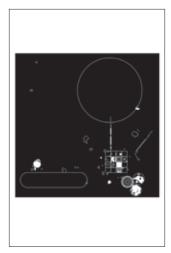
-Ananya Roy, Professor of Urban Planning, Social Welfare, and Geography and Founding Director of the Institute on Inequality and Democracy, UCLA

"Can justice be built? Cuff argues for alternatives to capital-dominated architecture and explores case studies that create community, dignity, and safety for all. This book is an inspiration—for architects, designers, clients, and policymakers alike."

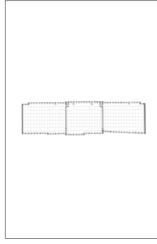
—Angelika Fitz, Director of Architekturzentrum Wien; and co-editor of Yasmeen Lari: Architecture for the Future

Also available









Architecture and Abstraction

Pier Vittorio Aureli

With a focus on global inequality, this richly illustrated monograph of social practice in architecture shows how to catalyze productive change in the world's border regions.

In this theoretical study of abstraction in architecture-the first of its kind-Pier Vittorio Aureli argues for a reconsideration of abstraction, its meanings, and its sources. Although architects have typically interpreted abstraction in formal terms-the purposeful reduction of the complexities of design to its essentials-Aureli shows that abstraction instead arises from the material conditions of building production. In a lively study informed by Walter Benjamin, Karl Marx, Alfred Sohn-Rethel, and other social theorists, Architecture and Abstraction presents abstraction in architecture not as an aesthetic tendency but as a movement that arises from modern divisions of labor and consequent social asymmetries.

These divisions were anticipated by the architecture of antiquity, which established a distinction between manual and intellectual labor, and placed the former in service to the latter. Further abstractions arose as geometry, used for measuring territories, became the intermediary between land and money and eventually produced the logic of the grid. In our own time, architectural abstraction serves the logic of capitalism and embraces the premise that all things can be exchanged-even experience itself is a commodity. To resist this turn, Aureli seeks a critique of architecture that begins not by scaling philosophical heights, but by standing at the ground level of material practice.

Pier Vittorio Aureli teaches at the École Polytechnique Fédérale de Lausanne (EPFL). He is the co-founder of Dogma and the author or coauthor of The Possibility of an Absolute Architecture (MIT Press), The Project of Autonomy, and Living and Working (MIT Press)

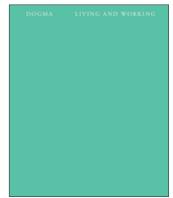
architecture

Mav 51/4 x 8, 328 pp. 60 illus.

US \$34.95T/\$45.95 CAN paper 978-0-262-54523-5

Writing Architecture series

Also available



978-0-262-53822-0



Architecture's Theory

Catherine Ingraham

A collection of illuminating essays exploring what theory makes of architecture and what architecture makes of theory in philosophical and materialized contexts.

From poststructuralism and deconstruction to current theories of technology and nature, critical theory has long been closely aligned with architecture. In turn, architecture as a thinking profession materializes theory in the form of built work that always carries symbolic loads. In this collection of essays, Catherine Ingraham studies the complex connectivity between architecture's discipline and practice and theories of philosophy, art, literature, history, and politics. She argues that there can be no architecture without theory.

Whether considering architecture's relationship to biomodernity or exploring the ways in which contemporary artists and designers engage in figural play, Ingraham offers provocative interpretations that enhance our understanding of both critical theory and architectural practice today. Along the way, she engages with a wide range of contemporary theorists, including Giorgio Agamben, Judith Butler, Jacques Derrida, Graham Harman, and Timothy Morton, considering buildings around the world, including the Palace of Culture in Warsaw, the Viceroy's House complex in New Delhi, Mack Scogin and Merrill Elam's Wolfsburg Science Center project in Germany, and the Superdome in New Orleans. Approaching its subject matter from multiple angles, Architecture's Theory shows how architecture's theoretical and artifactual practices have a unique power to alter culture.

Catherine Ingraham is Professor of Architecture and Urban Design in the graduate architecture program at Pratt Institute in Brooklyn. She was a visiting faculty member at Harvard University's Graduate School of Design from 2015 to 2019. A former editor of the journal Assemblage, she is the author of Architecture and the Burdens of Linearity and Architecture, Animal, Human.

architecture April 51/4 x 8, 280 pp. 17 illus. **US \$29.95T/\$39.95 CAN paper**

978-0-262-54497-9

Writing Architecture series





"This book unabashedly celebrates architecture's often awkward dance with built materiality, imagination, and agency, while also providing a scrupulous guide to the steps and moves that can make it so compelling."

- Stephen Cairns, ETH Zurich / Monash Indonesia, co-author of Buildings Must Die: A Perverse View of Architecture

"In Architecture's Theory Catherine Ingraham offers both a renewed perspective and a poignant reminder of theory's role in the discernment and production of architecture today."

-Mark Lee, Chair of the Architecture Department, Harvard Graduate School of Design

Beyond Digital

Design and Automation at the End of Modernity

Mario Carpo

Recasting computational design: a new modern agenda for a post-industrial, post-pandemic world.

Mass production was the core technical logic of industrial modernity: for the last hundred years, architects and designers have tried to industrialize construction and standardize building materials and processes in the pursuit of economies of scale. But this epochal march of modernity is now over. In *Beyond Digital*, Mario Carpo reviews the long history of the computational mode of production, showing how the merger of robotic automation and artificial intelligence will stop and reverse the modernist quest for scale. Today's technologies already allow us to use nonstandard building materials as found, or as made, and assemble them in as many nonstandard, intelligent, adaptive ways as needed: the microfactories of our imminent future will be automated artisan shops.

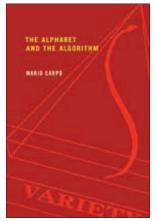
The post-industrial logic of computational manufacturing has been known and theorized for some time. By tracing its theoretical and technical sources, and reviewing the design theories that accompanied its rise, Carpo shows how the computational project, long under the sway of powerful antimodern ideologies, is now being recast by the urgency of the climate crisis, which has vindicated its premises—and by the global pandemic, which has tragically proven its viability. Looking at the work of a new generation of designers, technologists, and producers, *Beyond Digital* offers a new modern agenda for our post-industrial future.

Mario Carpo is the Reyner Banham Professor of Architectural History at the Bartlett-UCL in London and Professor of Architectural Theory at the University of Applied Arts (die Angewandte) in Vienna. He is the author of *Architecture in the Age of Printing* (MIT Press), *The Second Digital Turn* (MIT Press), and other books.

architecture

April 5 1/2 x 8, 192 pp. 30 illus.

US \$29.95T/\$39.95 CAN paper 978-0-262-54515-0 Also available



978-0-262-51580-1



978-0-262-53402-4

beyond digital

Design and Automation at the End of Modernity

MARIO CARPO

Martin Kippenberger

Everything Is Everywhere **Chris Reitz**

An illuminating study of the work of artist Martin Kippenberger, whose art expressed the enthusiasms and frustrations of the West German middle class.

Martin Kippenberger: Everything Is Everywhere is the first scholarly monograph in English on West German artist Martin Kippenberger (1953-1997), one of the most prominent German artists of the 1980s. In this book, Chris Reitz shows that the condition of Kippenberger's art was an endless, enthusiastic searching, constrained by the impossibility of fulfillment. A child during West Germany's Wirtschaftswunder, the economic miracle of the 1950s and 1960s, and a young adult during the economic recession and political tumult of the 1970s, Kippenberger belonged to the first truly postwar generation. But, largely uninterested in the legacy of National Socialism that had occupied his predecessors, Kippenberger instead pursued a hyperproductive artistic practice that reflected the dreams and fears of the ascendent 1980s West German middle class.

Kippenberger's ambitions took him everywhere: he founded a museum in Greece, invested in a fashion business and a restaurant, and even bought a gas station in Brazil. He made art in a dizzying range of genres, from paintings to poetry, from posters to stickers. He made art out of his appetites, too, producing art on the theme of his own alcoholism. Intensely entrepreneurial, Kippenberger carried out an artistic practice in which his diverse endeavors, and the people who joined him in them, were all connected in a sprawling network. Reitz deftly presents Kippenberger's career as an allegory of the neoliberal networks of capital, technology, and culture that spanned Europe and America in the 1980s.

Chris Reitz is Assistant Professor of Critical and Curatorial Studies and Gallery Director at the University of Louisville's Hite Institute of Art and Design. His writing has appeared in *October*, nonsite.org, *Texte zur Kunst*, *The Baffler*, *TANK*, *Paper Monument*, and *n*+1.

art

May 8 1/4 x 11 1/2, 244 pp. 116 color illus., 5 b&w illus.

US \$49.95T/\$71.95 CAN cloth 978-0-262-54501-3

Martin Kippenberger

Everything Is Everywhere

Chris Reitz



Cheyney Thompson

Passages Christian Schaernack translated by Ben Caton

One of the first book-length publications on contemporary artist Cheyney Thompson, whose work is known for its radically forward-looking intellectualism and formal rigor.

Cheyney Thompson's (b. 1975) work responds to a long history of debates about how art depicts the world, and about how we come to know the world visually. In *Cheyney Thompson: Passages*, Christian Schaernack shows that for Thompson, reality is something that we can know only in terms of probabilities, not absolutes. Thompson often produces work that explores contingency at the formal level, sometimes in his artistic process itself (as Jackson Pollock once did), and sometimes through the use of external constraints such as computer algorithms, which he subverts as often as he follows.

The meaning of observation has changed time and time again in the history of art, just as it has in the history of science. Delving into art history, intellectual history, and contemporary continental philosophy, Schaernack offers a multifaceted study of an artist who challenges our assumptions about how the world is ordered. From Thompson's early "black paintings" to his *Chronochromes* to the *Stochastic Process Paintings*, which engage with the algorithms that govern our digital lives, Schaernack presents a contemporary artist whose work embraces chance and responds to the shifting conditions of the present. This is art that reimagines artwork itself.

Christian Schaernack is a Berlin-based arts journalist who has covered the arts since the mid-1990s, including extensive writing for the *Neue Zürcher Zeitung*.

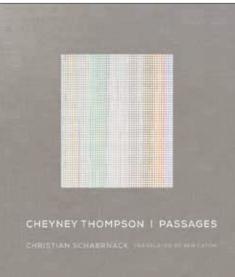
art

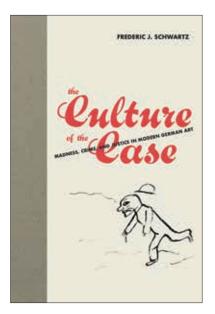
May 8 x 9, 248 pp. 81 color illus.

US \$54.95T/\$71.95 CAN cloth 978-0-262-04727-2

Copublished with Westreich Wagner Publications

German language rights are not available.





The Culture of the Case

Madness, Crime, and Justice in Modern German Art

Frederic J. Schwartz

How artists in twentieth-century Germany adapted the idea of the medical or legal case as an artistic strategy to push to the fore sexualities, scandals, and crimes that were otherwise concealed.

In early twentieth-century Germany, the artistic avant-garde borrowed procedures from the medical and juridical realms to expose and debate matters that society preferred remain hidden and unspoken. In *The Culture of the Case*, Frederic J. Schwartz explores how the evocation or creation of a "case" provided artists with a means to engage themes that ranged from blasphemy to *Lustmord*, or sexual murder. Shedding light on the case as a cultural form, Schwartz shows its profound effect on artists and the ways it dovetailed with methods used by these figures to exploit fundamental changes taking place across the mass media of their time.

As Schwartz shows, the case was a common denominator that connected seemingly disparate works. George Grosz and Rudolf Schlichter drew on it for their violent visual art, as did architect Adolf Loos when he equated ornament with crime. Expressionists, meanwhile, approached the question of whether the so-called "mad" shared a right of public expression with those deemed sane, and examined medical and legal approaches to what society labeled as insanity. The case also took on a personal dimension when artists found themselves confronted with, or chose to engage with, the legal system. German courts prosecuted John Heartfield and others for their provocative works, while Bertolt Brecht created publicity for himself by suing the firm to whom he sold the film rights to The Threepenny Opera. Provocative and insightful, The Culture of the Case offers a privileged view of the spaces of representation in which images-in some instances, as cases-functioned at a key moment of modernity.

Frederic J. Schwartz is Emeritus Professor of History of Art at University College London. His books include *The Werkbund* and *Blind Spots*.

art May 6 1/4 x 9 1/2, 424 pp. 39 color illus., 80 b&w illus.

US \$44.95T/\$59.95 CAN cloth 978-0-262-04770-8

Postsensual Aesthetics

On the Logic of the Curatorial

James Voorhies

Contemporary art exhibitions appeal to cognition as well as the senses, modeling a new and expansive understanding of global aesthetics.

In this original work of aesthetic theory, James Voorhies argues that we live in the shadow of old ways of thinking about art that emphasize the immediate visual experience of an autonomous art object. But theory must change as artistic and curatorial production has changed. It should encompass the full range of activities through which we encounter art and exhibitions, in which reading and thinking are central to the aesthetic experience. Voorhies advances the theoretical framework of a "postsensual aesthetics," which does not mean we are beyond a sensual engagement with objects, but rather embraces the cognitive connections with ideas that unite art and knowledge production. Cognitive engagements with art often begin with publications conceived as integral to exhibitions, conveying the knowledge and research artists and curators produce, and continuing in time and space beyond traditional curatorial frames. The idea, and not just visual immediacy, is now art's defining moment.

Voorhies reframes aesthetic criteria to account for the liminal, cognitive spaces inside and outside of the exhibition. Surveying a wide range of artists, curators, exhibitions, and related publications, he repositions the aesthetic theory of Theodor Adorno, and draws inspiration from Rosalind Krauss and Fredric Jameson, to describe a contemporary "logic of the curatorial." He demonstrates how, even as we increasingly expect to learn from contemporary art, we must avoid an instrumentalist and reductive view of art as a mere source of information. As Voorhies shows through an analysis of two major global exhibitions, dOCUMENTA (13) (artistic director Carolyn Christov-Bakargiev) and Documental1 (artistic director Okwui Enwezor), and of Ute Meta Bauer's curatorial work at the Centre for Contemporary Art Singapore, it is imperative for artistic research to retain its unique role in the production of knowledge.

James Voorhies is a curator and historian of modern and contemporary art based in New York City.

art

February 5 1/4 x 8, 176 pp.

US \$24.95T/\$33.95 CAN cloth 978-0-262-04760-9

Postsensual Aesthetics

ON THE LOGIC OF THE CURATORIAL

James Voorhies

exhibition histories, curatorial research, and contemporary practice." — Paul O'Neill, Director of the

"An exceptional book bridging

Graduate Program, Center for Curatorial Studies at Bard College; author of *The Culture* of *Curating and the Curating* of *Culture*(s)

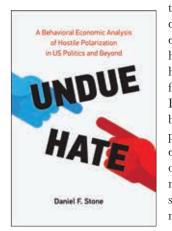
Undue Hate

A Behavioral Economic Analysis of Hostile Polarization in US Politics and Beyond

Daniel F. Stone

How to understand the mistakes we make about those on the other side of the political spectrum and how they drive the affective polarization that is tearing us apart.

It's well known that the political divide in the United States particularly between Democrats and Republicans—has grown



to alarming levels in recent decades. *Affective polarization* emotional polarization, or the hostility between the parties has reached an unprecedented fever pitch. In *Undue Hate*, Daniel F. Stone tackles the biases undergirding affective polarization head-on. Stone explains why we often develop objectively false, and overly negative, beliefs about the other side—causing us to dislike them more than we should. Approaching affective

polarization through the lens of behavioral economics, *Undue Hate* is unique in its use of simple mathematical concepts and models to illustrate how we misjudge those we disagree with, for both political and nonpolitical issues. Stone argues that while our biases may vary, just about all of us unwisely exacerbate conflict at times—managing to make *ourselves* worse off in the long run. Finally, the book offers both shortand long-term solutions for tempering our bias and limiting its negative consequences—and, just maybe, finding a way back to understanding one another before it is too late.

Daniel F. Stone is Associate Professor of Economics at Bowdoin College.

political science

May | 6 x 9, 232 pp. | 18 illus.

US \$30.00X/\$41.00 CAN paper 978-0-262-04750-0

Worn Out

How Retailers Surveil and Exploit Workers in the Digital Age and How Workers Are Fighting Back

Madison Van Oort

An immersive, first-hand account of retail worker surveillance and resistance in the digital age.

Technology has sped up the world of retail clothing, rushing affordable, trendy garments to consumers and enriching



multinational retail giants like Zara and H&M. But beneath the success of fast fashion, there is a grimmer story to be told—that of the people who do the actual producing and selling. Working undercover in two of the world's largest fast fashion stores in New York City, Madison Van Oort observed firsthand how data and surveillance shape the lives of low-status workers in an industry in flux—and how these workers are fighting back.

Worn Out provides an on-the-ground look at how technology helps create this just-in-time workforce, how feminized and racialized workers experience and respond to new forms of digital control, and how collective struggles for racial, gender, and economic justice in and around retail spaces inform these workers' resistance.

Worn Out draws on interviews with dozens of front-line workers and labor activists, and on evidence gathered at corporate conferences, to expose the exploitative reality of retail labor in the digital age. Van Oort shows how digital tools lubricate the shift toward just-in-time retail by collecting real-time data on not only customer behavior but also worker performance and how these tools—including automated scheduling platforms, biometric timeclocks, and cashier metrics—increase these workers' already heightened insecurity. One of the first ethnographies of this "thriving" industry, Van Oort's book pulls open the curtain between production and consumption and reveals the real cost of fast fashion.

Madison Van Oort is an independent scholar in Minneapolis, Minnesota.

sociology March | 5 1/4 x 8, 256 pp. | 8 illus.

US \$30.00X/\$41.00 CAN paper 978-0-262-54493-1

Labor and Technology series

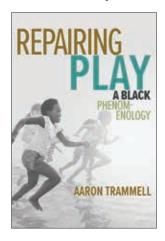
Repairing Play

A Black Phenomenology

Aaron Trammell

A provocative study that reconsiders our notion of play—and how its deceptively wholesome image has harmed and erased people of color.

Contemporary theorists present play as something wholly constructive and positive. But this broken definition is



drawn from a white European philosophical tradition that ignores the fact that play can, and often does, hurt. In fact, this narrow understanding of play has been complicit in the systemic erasure of Black, Indigenous, and People of Color (BIPOC) from the domain of leisure. In this book, Aaron Trammell proposes a corrective: a radical reconsideration of play that expands its definition to include BIPOC suffering, subjugation, and taboo topics

such as torture. As he challenges and decolonizes white European thought, Trammell maps possible ways to reconcile existing theories with the fact that play is often hurtful and toxic.

Trammell upends current notions by exploring play's function as a tool in the subjugation of BIPOC. As he shows, the phenomenology of play is a power relationship. Even in innocent play, human beings subtly discipline each other to remain within unspoken rules. Going further, Trammell departs from mainstream theory to insist that torture can be play. Approaching it as such reveals play's role in subjugating people in general and renders visible the long-ignored experiences of BIPOC. Such an inclusive definition of play becomes a form of intellectual reparation that corrects the notion that play must give pleasure—while also recasting play in a form that focuses on the deep, painful, and sometimes traumatic depths of living.

Aaron Trammell is Assistant Professor of Informatics at the University of California, Irvine. He is the Editor-in-Chief of the journal *Analog Game Studies* and Multimedia Editor of the journal *Sounding Out*!

game studies February | 5 1/4 x 8, 144 pp. | 1 b&w illus.

US \$20.00X/\$27.00 CAN paper 978-0-262-54527-3

Playful Thinking series

Detroit-Moscow-Detroit

An Architecture for Industrialization, 1917–1945

edited by Jean-Louis Cohen, Christina Crawford, and Claire Zimmerman

Ideologically opposed, technologically cooperative an original account of US and USSR industrialization between the world wars.

Between 1927 and 1945, a tide of hyperindustrialization washed over the United States and the Soviet Union. While the two countries remained ideologically opposed, the factories that amassed in Stalingrad, Moscow, Detroit, Buffalo, and Cleveland were strikingly similar, as were the new forms of modern work and urban and infrastructural development that supported this industrialization. Drawing on previously unknown archival materials and photographs, the essays in *Detroit-Moscow-Detroit* document a stunning two-way transfer of technical knowledge between the United States and the USSR that greatly influenced the built environment in both countries, upgrading each to major industrial power by the start of the Second World War.

The innovative research presented here explores spatial development, manufacturing, mass production, and organizational planning across geopolitical lines to demonstrate that capitalist and communist built environments in the twentieth century were not diametrically opposed and were, on certain sites, coproduced in a period of intense technical exchange between the two world wars. A fresh account of the effects of industrialization and globalization on US and Soviet cultures, architecture, and urban history, *Detroit-Moscow-Detroit* will find wide readership among architects, urban designers, and scholars of architectural, urban, and twentieth-century history.

Contributors:

Richard Anderson, Robert Bird, Oksana Chabanyuk, Jean-Louis Cohen, Christina E. Crawford, Robert Fishman, Christina Kiaer, Evgeniia Konysheva, Mark G. Meerovich, Sonia Melnikova-Raich, Lewis H. Siegelbaum, Maria C. Taylor, Claire Zimmerman, Katherine Zubovich.

Jean-Louis Cohen is Sheldon H. Solow Professor in the History of Architecture at New York University Institute of Fine Arts and author of more than 30 books on architectural history. Christina E. Crawford is Associate Professor of Modern and Contemporary Architecture at Emory University and faculty of Emory's Russian, East European, and Eurasian Studies Program. She is author of *Spatial Revolution: Architecture and Planning in the Early Soviet Union.* Claire Zimmerman is Associate Professor of Architectural History and Theory at the University of Michigan and is author of *Photographic Architecture in the Twentieth Century.*

architecture

June | 7 1/2 x 10, 336 pp. | 91 color illus., 213 b&w illus.

US \$50.00X/\$66.00 CAN cloth 978-0-262-04798-2

Narrating the Globe

The Emergence of World Histories of Architecture

edited by Petra Brouwer, Martin Bressani, and Christopher Drew Armstrong

How notions of progress, beauty, and cultural superiority structured the genre of nineteenthcentury world histories of architecture—and shaped the discipline as we know it today.

The nineteenth century saw the emergence of a new genre of architectural writing: the grand history of world architecture. This genre often expressed a deeply Eurocentric worldview, largely dismissing non-Western architecture through narratives of historical progress and stylistic beauty. Yet even as nineteenth-century historians worked to construct an exclusive architectural canon, they were engaged in constant debate over its categories and constraints. *Narrating the Globe* traces the emergence of this historical canon, exposing the questions and problems that prompted the canon's very formation.

Bringing together architectural historians from around the world, this collection of essays—the first comprehensive examination of the nineteenth-century architectural history survey as a literary genre—includes overviews of the origins and legacy of the global architecture survey genre, as well as close examinations of key works, including books by lesser-known but intriguing authors such as Louisa C. Tuthill, Christian L. Stieglitz, and Daniel Ramée, and the more famous surveys by James Fergusson, Franz Kugler, Banister Fletcher, and Auguste Choisy. *Narrating the Globe* is an illuminating read for anyone interested in architectural history's long, complex, and often tendentious trajectory.

Petra Brouwer is an architectural historian at the University of Amsterdam who specializes in the history of modern architecture and town planning. Author of an award-winning study of postwar design of Dutch new towns, she has also served as editor-in-chief for the journal *Architectural Histories*. Martin Bressani is William C. Macdonald Professor at McGill University's Peter G-H Fu School of Architecture in Montréal. Coeditor of the Nineteenth-Century Architecture volume of *The Companions to the History of Architecture*, he is also the author of *Architecture and the Historical Imagination: Eugène-Emmanuel Viollet-le-Duc*. Christopher Drew Armstrong is Associate Professor at the University of Pittsburgh, where he directs the Architectural Studies program. His many publications include the book *Julien-David Leroy and the Making of Architectural History*.

architecture

Fall 2023 | 8 1/2 x 11 1/4, 512 pp. | 120 color illus.

US \$60.00X/\$79.00 CAN cloth 978-0-262-04797-5

Style and Solitude

The History of an Architectural Problem

Mari Hvattum

How modern notions of architectural style were born—and the debates they sparked in nineteenth-century Germany.

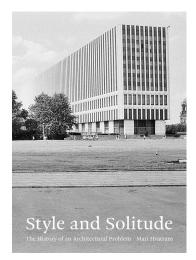
The term style has fallen spectacularly out of fashion in contemporary architectural circles. Once a conceptual key to understanding architecture's inner workings, today style seems to be associated with superficiality, formalism, and obsolete periodization. But how did style in architecture actually work? How was it used and what did it mean? In *Style and Solitude*, Mari Hvattum seeks to understand the apparent death of style, returning to its birthplace in the late eighteenth century when it was adopted into architectural parlance—and charting how it grew to influence architectural discourse and practice.

As Hvattum explains, German thinkers of the eighteenth and nineteenth century offered competing theories of what style was and how it should be used in architecture. Discussions of architectural style were so intertwined with notions of *Zeitgeist* that King Maximilian II of Bavaria launched a competition to create a new architectural style that truly suited his era. Starting with Johann Joachim Winckelmann's invention of the period style and ending a century later with Gottfried Semper's generative theory of style, Hvattum explores critical debates that are still ongoing today.

Mari Hvattum is Professor of Architectural History at The Oslo School of Architecture and Design. Her many books include *Gottfried Semper and the Problem of Historicism* and the edited collections *Modelling Time* and *The Printed and the Built*.

architecture June | 6 1/2 x 9 1/2, 320 pp. | 65 color illus., 10 b&w illus.

US \$40.00X/\$54.00 CAN cloth 978-0-262-54500-6



God's Own Language

Architectural Drawing in the Twelfth Century

Karl Kinsella

How modern architectural language was invented to communicate with the divine — challenging a common narrative of European architectural history.

The architectural drawing might seem to be a quintessentially modern form, and indeed many histories of the genre begin in the early modern period with Italian Renaissance architects such as Alberti. Yet the Middle Ages also had a remarkably sophisticated way of drawing and writing about architecture. *God's Own Language* takes us to twelfth-century Paris, where a Scottish monk named Richard of Saint Victor, along with his mentor Hugh, developed an innovative visual and textual architectural language. In the process, he devised techniques and terms that we still use today, from sectional elevations to the word "plan."

Surprisingly, however, Richard's detailed drawings appeared not in an architectural treatise but in a widely circulated set of biblical commentaries. Seeing architecture as a way of communicating with the divine, Richard drew plans and elevations for such biblical constructions as Noah's ark and the temple envisioned by the prophet Ezekiel. Interpreting Richard and Hugh's drawings and writings within the context of the thriving theological and intellectual cultures of medieval Paris, Karl Kinsella argues that the popularity of these works suggests that, centuries before the Renaissance, there was a large circle of readers with a highly developed understanding of geometry and the visual language of architecture.

Karl Kinsella is a lecturer in art history at the University of Aberdeen. He received the Hawksmoor Essay Medal in 2013 for his work on architectural drawing.

architecture

June | 61/4 x 91/2, 240 pp. | 44 b&w illus., 16 color plates

US \$40.00X/\$54.00 CAN cloth 978-0-262-04774-6



All the King's Horses

Vitruvius in an Age of Princes

Indra Kagis McEwen

How the Italian Renaissance reinvented the power of princes by rediscovering Vitruvius and his architecture—and justified their right to rule.

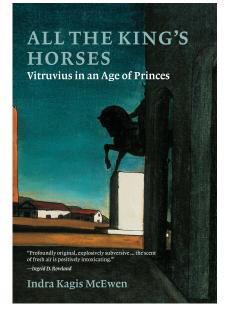
In Vitruvius: Writing the Body of Architecture, Indra Kagis McEwen argued that Vitruvius's first-century BC treatise De architectura was informed by imperial ideology, giving architecture a role in the imperial Roman project of world rule. In her sequel, All the King's Horses, McEwen focuses on the early Renaissance reception of Vitruvius's thought beginning with Petrarch—a political reception preoccupied with legitimating existing power structures. During this "age of princes" various signori took over Italian towns and cities, displacing independent communes and their avowed ideal of the common good. In turn, architects, taking up Vitruvius's mantle, designed for these princes with the intent of making their power manifest—and celebrating "the rule of one."

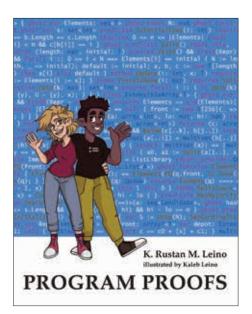
Through meticulous descriptions of the work of architects and artists from Leon Battista Alberti to Leonardo, McEwen explains how architecture became an instrument of control in the early Italian Renaissance. She shows how architectural magnificence supported claims to power, a phenomenon best displayed in one of the era's most prominent monumental themes: the equestrian statue of a prince, in which the horse became an emanation of the will of the rider, its strength the expression of his strength.

Indra Kagis McEwen is an architect, historian, and affiliate professor in the Art History Department at Concordia University in Montreal. Her publications include two books, *Socrates' Ancestor: An Essay on Architectural Beginnings* (1993) and *Vitruvius: Writing the Body of Architecture* (2003), both published by the MIT Press.

architecture April | 6 x 9, 320 pp. | 60 color illus., 7 b&w illus.

US \$40.00X/\$54.00 CAN cloth 978-0-262-04761-6





Program Proofs

K. Rustan M. Leino

This comprehensive and highly readable textbook teaches students how to formally reason about computer programs using an incremental approach and the verification-aware programming language Dafny.

Program Proofs shows students what it means to write specifications for programs, what it means for programs to satisfy those specifications, and how to write proofs that connect specifications and programs. Writing with clarity and humor, K. Rustan M. Leino first provides an overview of the basic theory behind reasoning about programs. He then gradually builds up to complex concepts and applications, until

students are facing real programs using objects, data structures, and non-trivial recursion. To emphasize the practical nature of program proofs, all material and examples use the verification-aware programming language Dafny, but no previous knowledge of Dafny is assumed.

K. Rustan M. Leino is a Senior Principal Applied Scientist in the Automated Reasoning Group at Amazon Web Services, an ACM Fellow, and a recipient of the CAV Award.

computer science

March 7 x 9, 496 pp. 18 line drawings, 4 illus.

US \$70.00X/\$92.00 CAN paper

978-0-262-54623-2

- Written in a highly readable and student-friendly style
- Builds up to complex concepts incrementally
- Comprehensively covers how to write proofs and how to specify and verify both functional programs and imperative programs
- Uses real program text from a real programming language, not pseudo code
- Features engaging illustrations and hands-on learning exercises

Physically Based Rendering

From Theory to Implementation

FOURTH EDITION

Matthew Pharr, Wenzel Jakob, and Greg Humphreys

A comprehensive update of the leading-edge computer graphics textbook that sets the standard for physically based rendering in the industry and the field, with new material on GPU ray tracing.

Photorealistic computer graphics are ubiquitous in today's world, widely used in movies and video games as well as product design and architecture. Physically based approaches to rendering, where an accurate modeling of the physics of light scattering is at the heart of image synthesis, offer both visual realism and predictability. Now in a comprehensively updated new edition, this best-selling computer graphics textbook sets the standard for physically based rendering in the industry and the field.

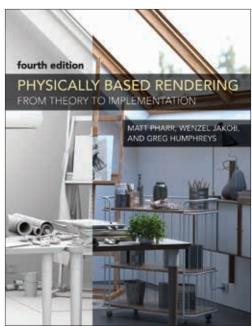
Physically Based Rendering describes both the mathematical theory behind a modern photorealistic rendering system and its practical implementation. A method known as literate programming combines human-readable documentation and source code into a single reference that is specifically designed to aid comprehension. The book's leading-edge algorithms, software, and ideas—including new material on GPU ray tracing—equip the reader to design and employ a full-featured rendering system capable of creating stunning imagery. This essential text represents the future of real-time graphics.

Matthew Pharr is a Distinguished Research Scientist at NVIDIA. He previously worked at Google, cofounded Neoptica, and cofounded Exluna. Wenzel Jakob is Assistant Professor of Computer Science at the École polytechnique fédérale de Lausanne (EPFL), where he leads the Realistic Graphics Lab. Greg Humphreys is a software engineer at a stealth startup. He previously worked on the Chrome graphics team at Google and as a professor of computer science at the University of Virginia.

computer science

March 8 x 10, 1284 pp. 450 color illus.

US \$120.00X/\$157.00 CAN cloth 978-0-262-04802-6



- Detailed and rigorous but accessible approach that guides readers all the way from theory to practical software implementation
- New chapter on GPU ray tracing essential for game developers
- The premier reference for professionals learning about and working in the field
- Won its authors a 2014 Academy Award for Scientific and Technical Achievement
- Includes a companion site complete with source code

Bayesian Models of Perception and Action

An Introduction

Wei Ji Ma, Konrad Paul Kording, and Daniel Goldreich

An accessible introduction to constructing and interpreting Bayesian models of perceptual decision-making and action.

Many forms of perception and action can be mathematically modeled as probabilistic—or Bayesian—inference, a method used to draw conclusions from uncertain evidence. According to these models, the human mind behaves like a capable data scientist or crime scene investigator when dealing with noisy and ambiguous data. This textbook provides an approachable introduction to constructing and reasoning with probabilistic models of perceptual decision-making and action. Featuring extensive examples and illustrations, *Bayesian Models of Perception and Action* is the first textbook to teach this widely used computational framework to beginners.

- Introduces Bayesian models of perception and action, which are central to cognitive science and neuroscience
- Beginner-friendly pedagogy includes intuitive examples, daily life illustrations, and gradual progression of complex concepts
- Broad appeal for students across psychology, neuroscience, cognitive science, linguistics, and mathematics
- Written by leaders in the field of computational approaches to mind and brain

Wei Ji Ma is Professor of Neural Science and Psychology at New York University, founder of the Growing up in Science series, and a founding member of the Scientist Action and Advocacy Network. Konrad Paul Kording is Professor of Bioengineering and Neuroscience at the University of Pennsylvania, cofounder of Neuromatch, and codirector of the CIFAR Program in Learning in Machines & Brains. Daniel Goldreich is Associate Professor of Psychology, Neuroscience & Behaviour at McMaster University and director of the undergraduate Honours Neuroscience Program.

cognitive science

June | 7 x 10, 360 pp. | 128 color illus.

US \$65.00X/\$86.00 CAN cloth 978-0-262-04759-3

Essentials of Compilation

An Incremental Approach in Racket

Jeremy G. Siek

A hands-on approach to understanding and building compilers.

Compilers are notoriously some of the most difficult programs to teach and understand. Most books about compilers dedicate one chapter to each progressive stage, a structure that hides how language features motivate design choices. By contrast, this innovative textbook provides an incremental approach that allows students to write every single line of code themselves. *Essentials of Compilation* guides the reader in constructing their own compiler for a small but powerful programming language, adding complex language features as the book progresses. Jeremy Siek explains the essential concepts, algorithms, and data structures that underlie modern compilers and lays the groundwork for future study of advanced topics. Already in wide use by students and professionals alike, this rigorous but accessible book invites readers to learn by doing.

- Deconstructs the challenge of compiler construction into bite-sized pieces
- Enhances learning by connecting language features to compiler design choices
- Develops understanding of how programs are mapped onto computer hardware
- Learn-by-doing approach suitable for students and professionals
- Proven in the classroom
- Extensive ancillary resources include source code and solutions

Jeremy G. Siek is Professor of Computer Science at Indiana University and author of *The Boost Graph Library*. He invented gradual typing, a type system that integrates both dynamic and static typing in the same programming language.

computer science

February | 7 x 10, 240 pp. | 144 illus.

US \$50.00X/\$66.00 CAN cloth 978-0-262-04776-0

The Little Learner

A Straight Line to Deep Learning

Daniel P. Friedman and Anurag Mendhekar

illustrated by Qingqing Su Forewords by Guy L. Steele, Jr. and Peter Norvig

A highly accessible, step-by-step introduction to deep learning, written in an engaging question-and-answer style.

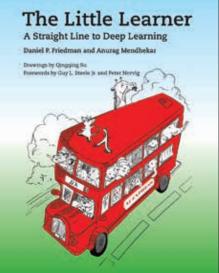
The Little Learner introduces deep learning from the bottom up, inviting students to learn by doing. With the characteristic humor and Socratic approach of classroom favorites The Little Schemer and The Little Typer, this kindred text explains the workings of deep neural networks by constructing them incrementally from first principles using little programs that build on one another. Starting from scratch, the reader is led through a complete implementation of a substantial application: a recognizer for noisy Morse code signals. Example-driven and highly accessible, The Little Learner covers all of the concepts necessary to develop an intuitive understanding of the workings of deep neural networks, including tensors, extended operators, gradient descent algorithms, artificial neurons, dense networks, convolutional networks, residual networks, and automatic differentiation.

Daniel P. Friedman is Professor of Computer Science in the School of Informatics, Computing, and Engineering at Indiana University and is the author of many books published by the MIT Press, including *The Little Schemer* and *The Seasoned Schemer* (with Matthias Felleisen); *The Little Prover* (with Carl Eastlund); and *The Reasoned Schemer* (with William E. Byrd, Oleg Kiselyov, and Jason Hemann). Anurag Mendhekar is Cofounder and President of Paper Culture, where he focuses on developing artificial intelligence for creativity, and an entrepreneur. He started his career at Xerox's Palo Alto Research Center (PARC), where he was one of the inventors of aspect-oriented programming.

computer science

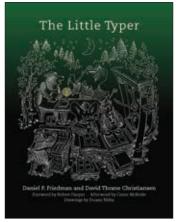
February 7 x 9, 440 pp. 27 illus.

US \$55.00X/\$73.00 CAN paper 978-0-262-54637-9

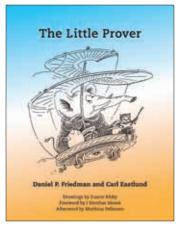


- Conversational style, illustrations, and question-and-answer format make deep learning accessible and fun
- Incremental approach constructs advanced concepts from first principles
- Presents key ideas of machine learning using a small, manageable subset of the Scheme language
- Suitable for anyone with knowledge of high school math and some

Also available



978-0-262-53643-1



Biological Intelligence for Biomimetic Robots

An Introduction to Synthetic Neuroethology

Joseph Ayers

From a pioneer in biorobotics, an introduction to how neuroethology can inform the development of robots controlled by synaptic networks instead of algorithms.

The trait most fundamental to the evolution of animals is the capability to adapt to novel circumstances in unpredictable environments. Recent advances in biomimetics have made it feasible to construct robots modeled on such unsupervised autonomous behavior, and animal models provide a library of existence proofs. Filling an important gap in the field, this introductory textbook illuminates how neurobiological principles can inform the development of robots that are controlled by synaptic networks, as opposed to algorithms. Joseph Ayers provides a comprehensive overview of the sensory and motor systems of a variety of model biological systems and shows how their behaviors may be implemented in artificial systems, such as biomimetic robots.

- Introduces the concept of biological intelligence as applied to robots, building a strategy for autonomy based on the neuroethology of simple animal models
- Provides a mechanistic physiological framework for the control of innate behavior
- Illustrates how biomimetic vehicles can be operated in the field persistently and adaptively
- Developed by a pioneer in biorobotics with decades of teaching experience
- Proven in the classroom
- Suitable for professionals and researchers as well as undergraduate and graduate students in cognitive science and computer science

Joseph Ayers is Professor of Marine and Environmental Sciences and Biology in the Marine Science Center at Northeastern University.

technology May | 8 x 10, 448 pp. | 190 color illus.

US \$75.00X/\$99.00 CAN cloth 978-0-262-04814-9

Computing and Technology Ethics

Engaging through Science Fiction

Emanuelle Burton, Judy Goldsmith, Nicholas Mattei, Cory Siler, and Sara-Jo Swiatek

A new approach to teaching computing and technology ethics using science fiction stories.

Should autonomous weapons be legal? Will we be cared for by robots in our old age? Does the efficiency of online banking outweigh the risk of theft? From communication to travel to medical care, computing technologies have transformed our daily lives, for better and for worse. But how do we know when a new development comes at too high a cost? Using science fiction stories as case studies of ethical ambiguity, this engaging textbook offers a comprehensive introduction to ethical theory and its application to contemporary developments in technology and computer science.

Computing and Technology Ethics first introduces the major ethical frameworks: deontology, utilitarianism, virtue ethics, communitarianism, and the modern responses of responsibility ethics, feminist ethics, and capability ethics. It then applies these frameworks to many of the modern issues arising in technology ethics including privacy, computing, and artificial intelligence. A corresponding anthology of science fiction brings these quandaries to life and challenges students to ask ethical questions of themselves and their work.

- Uses science fiction case studies to make ethics education engaging and fun
- Trains students to recognize, evaluate, and respond to ethical problems as they arise
- Features anthology of short stories from internationally acclaimed writers including Ken Liu, Elizabeth Bear, Paolo Bacigalupi, and T. C. Boyle to animate ethical challenges in computing technology
- Written by an interdisciplinary author team of computer scientists and ethical theorists
- Includes a robust suite of instructor resources, such as pedagogy guides, story frames, and reflection questions

Emanuelle Burton is a Lecturer in the Department of Computer Science at the University of Illinois Chicago, where she teaches courses in ethics. Judy Goldsmith is Professor of Computer Science at the University of Kentucky. Nicholas Mattei is Assistant Professor of Computer Science at Tulane University. Cory Siler is a Graduate Research Assistant in the Narrative Intelligence Lab at the University of Kentucky. Sara-Jo Swiatek earned her PhD in ethics from the University of Chicago.

computer science

February | 8 x 9, 504 pp. | 3 illus.

US \$85.00X/\$112.00 CAN cloth 978-0-262-04806-4

The Developmental Organization of Robot Behavior

Roderic A. Grupen

A comprehensive introduction to the mathematical foundations of movement and actuation that apply equally to animals and machines.

This textbook offers a computational framework for the sensorimotor stage of development as applied to robotics. Much work in developmental robotics is based on ad hoc examples, without a full computational basis. This book's comprehensive and complete treatment fills the gap, drawing on the principal mechanisms of development in the first year of life to introduce what is essentially an operating system for developing robots. The goal is to apply principles of development to robot systems that not only achieve new levels of performance but also provide evidence for scientific theories of human development.

The book covers motor units, explaining how animals and robots actuate and control their bodies; discusses kinematics and dynamics of articulated sensorimotor mechanisms, including a traditional treatment of the kinematics of grasping; examines the commonly used sensor modalities of vision and touch, comparing them to their biological counterparts; and explores the role of developmental neurology in the first year of life, codifying it in a computational architecture for developmental robotics. Written exercises reinforce the content. Programming projects can be undertaken using a simple robot simulator, "Roger" (named after Paul Churchland's Roger the Crab). Appendixes provide supporting mathematics, including a primer on linear algebra and integral transforms, common methods for deriving the dynamic equation of motion for articulated systems, the basics of numerical relaxation, and an introduction to Q-learning.

Roderic A. Grupen is Professor of Computer Science and Director of the Laboratory for Perceptual Robotics at the University of Massachusetts Amherst.

computer science March | 7 x 10, 402 pp. | 184 illus.

US \$95.00X/\$125.00 CAN cloth 978-0-262-07300-4 Intelligent Robotics and Autonomous Agents series

Networks

An Economics Approach

Sanjeev Goyal

An accessible and comprehensive overview of the economic theory and the realities of networks written by a pioneering economics researcher.

Networks are everywhere: the infrastructure that brings water into our homes, the social networks made up of our friends and families, the supply chains connecting cities, people, and goods. These interconnections contain economic trade-offs: for example, should an airline operate direct flights between cities or route all its flights through a hub? Viewing networks through an economics lens, this textbook considers the costs and benefits that govern their formation and functioning.

Networks are central to an understanding of the production, consumption, and information that lie at the heart of economic activity. Sanjeev Goyal provides advanced undergraduate and graduate students with an accessible and comprehensive introduction to the economics research on networks of the past twenty-five years. Each chapter introduces a theoretical model illustrated with the help of case studies and formal proofs. After introducing the theoretical concepts, Goyal examines economic networks, including infrastructure, security, market power, and financial networks. He then covers social networks, with chapters on coordinating activity, communication and learning, information networks, epidemics, and impersonal markets. Finally, Goyal locates social and economic networks in a broader context covering networked markets, economic development, trust, and group networks in their relation to markets and the state.

- First textbook to provide a broad and comprehensive overview of twenty-first-century economic theory of networks
- Features engaging case studies and accessible exercises
- Written by a pioneering economics researcher

Sanjeev Goyal is Arthur C. Pigou Professor of Economics at the University of Cambridge, a Fellow of Christ's College, Cambridge, and Professor of Economics at New York University Abu Dhabi. He is a Fellow of the British Academy, a Fellow of the Econometric Society, and the author of *Connections: An Introduction to the Economics of Networks*.

economics

April | 8 x 9, 816 pp. | 237 color illus.

US \$125.00X/\$163.00 CAN cloth 978-0-262-04803-3

Regression Modeling for Linguistic Data

Morgan Sonderegger

The first comprehensive textbook on regression modeling for linguistic data offers an incisive conceptual overview along with worked examples that teach practical skills for realistic data analysis.

In the first comprehensive textbook on regression modeling for linguistic data in a frequentist framework, Morgan Sonderegger provides graduate students and researchers with an incisive conceptual overview along with worked examples that teach practical skills for realistic data analysis. The book features extensive treatment of mixed-effects regression models, the most widely used statistical method for analyzing linguistic data.

Sonderegger begins with preliminaries to regression modeling: assumptions, inferential statistics, hypothesis testing, power, and other errors. He then covers regression models for non-clustered data: linear regression, model selection and validation, logistic regression, and applied topics such as contrast coding and nonlinear effects. The last three chapters discuss regression models for clustered data: linear and logistic mixed-effects models as well as model predictions, convergence, and model selection. The book's focused scope and practical emphasis will equip readers to implement these methods and understand how they are used in current work.

- · The only advanced discussion of modeling for linguists
- Uses R throughout, in practical examples using real datasets
- · Extensive treatment of mixed-effects regression models
- · Contains detailed, clear guidance on reporting models
- Equal emphasis on observational data and data from controlled experiments
- Suitable for graduate students and researchers with computational interests across linguistics and cognitive science

Morgan Sonderegger is Associate Professor of Linguistics at McGill University.

linguistics | science June | 7 x 10, 454 pp. | 6 color illus., 90 b&w illus.

US \$60.00X/\$79.00 CAN paper 978-0-262-04548-3

Life in Media

A Global Introduction to Media Studies

Mark Deuze

A new way to teach media studies that centers students' lived experiences and diverse perspectives from around the world.

From the intimate to the mundane, most aspects of our lives—how we learn, love, work, and play—take place in media. Taking an expansive, global perspective, this introductory textbook covers what it means to live in, rather than with, media. Mark Deuze focuses on the lived experience—how people who use smartphones, the internet, and television sets make sense of their digital environment to investigate the broader role of media in society and everyday life.

Life in Media uses relatable examples and case studies from around the world to illustrate the foundational theories, concepts, and methods of media studies. The book is structured around six core themes: how media inform and inspire our daily activities; how we live our lives in the public eye; how we make distinctions between real and fake; how we seek and express love; how we use media to effect change; how we create media and shared narratives; and how we seek to create well-being within media. By deliberately including diverse voices and radically embracing the everyday and mundane aspects of media life, this book innovates ways to teach and talk about media.

- · Highlights diverse international voices, images, and cases
- Uses accessible examples from everyday life to contextualize theory
- Offers a comprehensive, student-centered introduction to media studies
- Extensively annotated bibliography offers dynamic sources for further study, including readings and documentary films

Mark Deuze is Professor of Media Studies at the University of Amsterdam's Faculty of Humanities and coauthor of *McQuail's Media and Mass Communication Theory*, among other works.

media studies

July | 7 x 9, 312 pp. | 41 color illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-54558-7

Knowledge Management in Theory and Practice

FOURTH EDITION

Kimiz Dalkir

This thoroughly revised fourth edition of the leading knowledge management (KM) textbook offers a comprehensive and accessible overview of the theory and practice of KM.

Today's knowledge-driven economy raises the stakes for organizations and individuals whose success depends on the effective management of information and knowledge. Knowledge is an asset that is not always easily tapped, especially when embedded in products and in the tacit understanding of highly mobile individual employees. Knowledge management (KM) represents a deliberate and systematic approach to cultivating and sharing an organization's knowledge base. This thoroughly revised new edition of the leading knowledge management textbook offers a comprehensive and accessible overview of the theory and practice of KM. Drawing on ideas, tools, and techniques from such disciplines as sociology, cognitive science, organizational behavior, and information science, it serves as an invaluable resource for students and researchers across information sciences, business, education, and communication. Global in scope and updated to reflect the maturing field, this fourth edition emphasizes optimizing KM and measuring its success and impact in meaningful ways.

Fourth edition highlights:

- Comprehensively updated to integrate the latest theories, practices, and technologies in KM
- Discusses not only how to implement but how to sustain successful KM strategies and systems in the long term
- Includes new coverage of KM governance and the KM ISO standard introduced in 2018
- Features detailed, real-world vignettes and a wealth of instructor resources, including slides and solutions

Kimiz Dalkir is Associate Professor and Director at McGill University's School of Information Studies. A practitioner in the field for more than twenty years, she advises companies on the design, development, and evaluation of knowledge-based systems.

business May | 7 x 9, 424 pp. | 79 illus. **US \$70.00X/\$92.00 CAN cloth** 978-0-262-04812-5

Contracts

Happiness and Heartbreak THIRD EDITION Randall Kennedy

A casebook to be used as the primary text for first-year law school contracts courses, written by a leading scholar in contract law.

Renting a home, buying a ticket, downloading an app—humans enter into contracts constantly, often with little consciousness of the legal implications. We typically become alert to the consequences only when a problem arises. Contracting can increase our happiness by enabling us to do things that we would otherwise be unable to do, but heartbreak follows when things go wrong. This casebook, which can be used as a primary text for a first-year law school contracts course, covers a wide spectrum of quandaries that emerge in contract law, from problems of overreach and interpretation to enforcement and fraud. Taken together, these cases offer an exploration of contract pathology and introduce students to concepts that are essential to understanding the vast subject of Anglo-American contract law.

This book is part of the Open Casebook series from Harvard Law School Library and the MIT Press.

- · Primary text for a first-year law school contracts course
- Developed for use at Harvard Law School by a leading scholar in contract law
- Diverse cases show differing approaches to a range of problems within contracting
- · Classroom tested

Randall Kennedy is Michael R. Klein Professor at Harvard Law School where he teaches courses on contracts, criminal law, and the regulation of race relations.

law April | 7 x 10, 840 pp.

US \$85.00X/\$112.00 CAN paper 978-0-262-54568-6

The Open Casebook Series

Vegetal Entwinements in Philosophy and Art

A Reader

edited by Giovanni Aloi and Michael Marder

The first reader in critical plant studies, exploring a rapidly growing multidisciplinary field—the intersection of philosophy with plant science and the visual arts.

In recent years, philosophy and art have testified to how anthropocentrism has culturally impoverished our world, leading to the wide destruction of habitats and ecosystems. In this book, Giovanni Aloi and Michael Marder show that the field of critical plant studies can make an important contribution, offering a slew of possibilities for scientific research, local traditions, Indigenous knowledge, history, geography, anthropology, philosophy, and aesthetics to intersect, inform one another, and lead interdisciplinary and transcultural dialogues.

Vegetal Entwinements in Philosophy and Art considers such topics as the presence of plants in the history of philosophy, the shifting status of plants in various traditions, what it means to make art with growing life forms, and whether or not plants have moral standing. In an experimental vegetal arrangement, the reader presents some of the most influential writing on plants, philosophy, and the arts, together with provocative new contributions, as well as interviews with groundbreaking contemporary artists whose work has greatly enhanced our appreciation of vegetal being.

Giovanni Aloi is an art historian who teaches at the School of the Art Institute of Chicago. His past books include *Why Look at Plants? The Botanical Emergence in Contemporary Art* and *Lucian Freud: Herbarium*. **Michael Marder** is a philosopher who teaches at the University of the Basque Country. His past books include *Philosophy for Passengers* (MIT Press), *The Philosopher's Plant: An Intellectual Herbarium*, and *Plant-Thinking: A Philosophy of Vegetal Life*.

art | nature

July | 7 x 9, 648 pp. | 22 illus.

US \$65.00X/\$86.00 CAN cloth 978-0-262-04779-1

Computational Formalism

Art History and Machine Learning

Amanda Wasielewski

How the use of machine learning to analyze art images has revived formalism in art history, presenting a golden opportunity for art historians and computer scientists to learn from one another.

Though formalism is an essential tool for art historians, much recent art history has focused on the social and political aspects of art. But now art historians are adopting machine learning methods to develop new ways to analyze the purely visual in datasets of art images. Amanda Wasielewski uses the term "computational formalism" to describe this use of machine learning and computer vision technique in art historical research. At the same time that art historians are analyzing art images in new ways, computer scientists are using art images for experiments in machine learning and computer vision. Their research, says Wasielewski, would be greatly enriched by the inclusion of humanistic issues.

The main purpose in applying computational techniques such as machine learning to art datasets is to automate the process of categorization using metrics such as style, a historically fraught concept in art history. After examining a fifteen-year trajectory in image categorization and art dataset creation in the fields of machine learning and computer vision, Wasielewski considers deep learning techniques that both create and detect forgeries and fakes in art. She investigates examples of art historical analysis in the fields of computer and information sciences, placing this research in the context of art historiography. She also raises such questions as which artworks are chosen for digitization, and of those artworks that are born digital, which works gain acceptance into the canon of high art.

Amanda Wasielewski is Researcher/Lecturer in Art History at Stockholm University. She is the author of *Made in Brooklyn: Artists, Hipsters, Makers, Gentrifiers* and *From City Space to Cyberspace: Art, Squatting, and Internet Culture in the Netherlands.*

May | 6 x 9, 200 pp. | 4 color illus., 6 b&w illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54564-8 Leonardo Book series

art

Art + DIY Electronics

Garnet Hertz

A systematic theory of DIY electronic culture, drawn from a century of artists who have independently built creative technologies.

Since the rise of Arduino and 3D printing in the mid-2000s, do-it-yourself approaches to the creative exploration of technology have surged in popularity. But the maker movement is not new: it is a historically significant practice in contemporary art and design. *Art* + *DIY Electronics* documents, tracks, and identifies a hundred years of innovative DIY technology practices, illustrating how the maker movement is a continuation of a long-standing creative electronic subculture. Through this comprehensive exploration, Garnet Hertz develops a theory and language of creative DIY electronics, drawing from diverse examples of contemporary art, including work from renowned electronic artists such as Nam June Paik and such art collectives as Survival Research Laboratories and the Barbie Liberation Front.

Hertz uncovers the defining elements of electronic DIY culture, which often works with limited resources to bring new life to obsolete objects while engaging in a critical dialogue with consumer capitalism. Whether hacking blackboxed technologies or deploying culture jamming techniques to critique commercial labor practices or gender norms, the artists have found creative ways to make personal and political statements through creative technologies. The wide range of innovative works and practices profiled in *Art* + *DIY Electronics* form a general framework for DIY culture and help inspire readers to get creative with their own adaptations, fabrications, and reimaginations of everyday technologies.

Garnet Hertz is Canada Research Chair in Design and Media Arts and Associate Professor of Design at Emily Carr University. The recipient of a Fulbright and the Oscar Signorini Award in robotic art, he has exhibited his work in eighteen countries and been profiled by such media outlets as CNN, NPR, and *Wired*.

art

May | 6 x 9, 336 pp. | 84 color illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-04493-6

Leonardo Book series

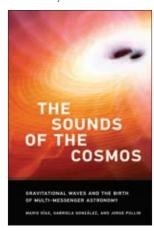
The Sounds of the Cosmos

Gravitational Waves and the Birth of Multi-Messenger Astronomy

Mario Díaz, Gabriela González, and Jorge Pullin

The remarkable story of how humankind discovered gravitational waves, chronicled with unparalleled historical and scientific vision.

In 2016, the LIGO and Virgo Collaborations made headlines when they announced the detection of gravitational waves—a



century after Albert Einstein first predicted their existence with his general theory of relativity. With unprecedented perspective as physicists at the forefront of this discovery, Mario Díaz, Gabriela González, and Jorge Pullin provide a comprehensive and accessible account of the quest to find gravitational waves, their controversial history, and the efforts that culminated with their detection and a Nobel Prize in Physics.

The Sounds of the Cosmos

vividly narrates contributions from the ancient Greeks through Einstein, in addition to the breakthroughs of the twentieth and twenty-first centuries, including the discovery of the Hulse–Taylor binary star system (the first of its kind ever observed) and the technology behind gravitational wave detectors. The authors' fusion of meticulous research and accessible prose makes this book an indispensable resource for the scientifically curious, lending astonishing new context to the revelation that we can "hear" the cosmos through gravitational waves. Written with exceptional historical and conceptual insight, this is a definitive and dazzling journey through "the eternal quest of humankind to understand the universe."

Mario Díaz is Director of the Center for Gravitational Wave Astronomy at the University of Texas Rio Grande Valley, where he is also a Professor of Physics, and President of the National Society of Hispanic Physicists. **Gabriela González** is Boyd Professor of Physics & Astronomy at Louisiana State University, a former spokesperson of the LIGO Scientific Collaboration (LSC), and a member of the US National Academy of Sciences. **Jorge Pullin** is Horace Hearne Chair in Theoretical Physics at Louisiana State University and was founding editor of the journal *Physical Review X*.

physics

February | 6 x 9, 220 pp. | 47 b&w illus., 8 color plates

US \$30.00X/\$40.00 CAN cloth 978-0-262-54494-8

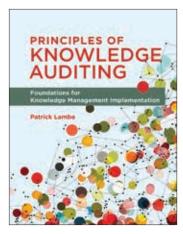
Principles of Knowledge Auditing

Foundations for Knowledge Management Implementation

Patrick Lambe

A comprehensive theoretical and practical guide to the operating principles of knowledge auditing, illustrated with numerous case studies.

A knowledge audit provides an "at a glance" view of an organization's needs and opportunities. Its purpose is to



improve an organization's effectiveness through a better understanding of the dynamics and levers of knowledge production, access, and use. However, this developing field is hampered by the lack of a common language about the origins and nature of knowledge auditing. In *Principles of Knowledge Auditing*, Patrick Lambe integrates the theory and practices of the field,

laying out principles and guidelines for a clearer and more pragmatic approach to knowledge auditing that makes it more accessible to practitioners and researchers.

Lambe examines knowledge auditing in the context of the development of communications, information, and knowledge management in the twentieth century. He critiques and clarifies ambiguities in how knowledge audits are approached and described, as well as how the results are conveyed within organizations. He discusses the benefits and risks of knowledge management standards. Knowledge auditors, he says, need a common frame of reference more than they need standards. Standards have their uses, but they provide only markers and sign posts and are poor representations of the richness of the landscape. He concludes with a set of guiding principles for practitioners.

Patrick Lambe is Principal Consultant at Straits Knowledge. He is the author of Organising Knowledge: Taxonomies, Knowledge and Organisational Effectiveness and coauthor of the award-winning The Knowledge Manager's Handbook: A Step-by-Step Guide to Embedding Effective Knowledge Management in Your Organization.

business | management May | 7 x 9, 424 pp. | 18 illus. **US \$50.00X/\$66.00 CAN paper**

978-0-262-54503-7

Molecular World

Making Modern Chemistry

Catherine M. Jackson

A compelling and innovative account that reshapes our view of nineteenth-century chemistry, explaining a critical period in chemistry's quest to understand and manipulate organic nature.

According to existing histories, theory drove chemistry's remarkable nineteenth-century development. In *Molecular World*, Catherine M. Jackson shows instead how novel experimental approaches combined with what she calls "laboratory reasoning" enabled chemists to bridge wet chemistry and abstract concepts and, in so doing, create the molecular world. Jackson introduces a series of practicebased breakthroughs that include chemistry's move into lampworked glassware, the field's turn to synthesis and subsequent struggles to characterize and differentiate the products of synthesis, and the gradual development of institutional chemical laboratories, an advance accelerated by synthesis and the dangers it introduced.

Jackson's historical reassessment emerges from the investigation of alkaloids by German chemists Justus Liebig, August Wilhelm Hofmann, and Albert Ladenburg. Stymied in his own research, Liebig steered his student Hofmann into pioneering synthesis as a new investigative method. Hofmann's practice-based laboratory reasoning produced a major theoretical advance, but he failed to make alkaloids. That landmark fell to Ladenburg, who turned to cutting-edge theory only after his successful synthesis.

In telling the story of these scientists and their peers, Jackson reveals organic synthesis as the ground chemists stood upon to forge a new relationship between experiment and theory—with far-reaching consequences for chemistry as a discipline.

Catherine M. Jackson is Associate Professor of the History of Science at the University of Oxford, Peck Fellow in History at Harris Manchester College, and Director of the Oxford Centre for the History of Science, Medicine, and Technology.

science | history

July | 6 x 9, 456 pp. | 44 illus.

US \$75.00X/\$99.00 CAN paper

978-0-262-54554-9

Transformations: Studies in the History of Science and Technology series

Just in Time

Temporality, Aesthetic Experience, and Cognitive Neuroscience

G. Gabrielle Starr

Literature and neuroscience come together to illuminate the human experience of beauty, which unfolds in time.

How does beauty exist in time? This is Gabrielle Starr's central concern in *Just in Time* as she explores the experience of beauty not as an abstraction, but as the result of psychological and neurological processes in which time is central. Starr shows that aesthetic experience has temporal scale. Starr, a literary scholar and pioneer in the field and method of neuroaesthetics, which seeks the neurological basis of aesthetic experience, applies this methodology to the study of beauty in literature, considering such authors as Dawoud Bey, Rita Dove, Gerard Manley Hopkins, Henry James, Toni Morrison, and Wallace Stevens, as well as the artist Jasper Johns.

Just in Time is richly informed by the methods and findings of neuroscientists, whose instruments let them investigate encounters with art down to the millisecond, but Starr goes beyond the laboratory to explore engagements with art that unfold over durations experiments cannot accommodate. In neuroaesthetics, Starr shows us, the techniques of the empirical sciences and humanistic interpretation support and complement one another. To understand the temporal quality of aesthetic experience we need both cognitive and phenomenological approaches, and this book moves boldly toward their synthesis.

G. Gabrielle Starr is the Philip and Gertrude McConnell Professor of Human Relations and Professor of English and Neuroscience at Pomona College, and President of Pomona College. Her publications include *Feeling Beauty: The Neuroscience of Aesthetic Experience* (MIT Press).

cognitive neuroscience | aesthetics June | 6 x 9, 272 pp. | 20 color illus., 7 b&w illus.

US \$40.00X/\$54.00 CAN cloth 978-0-262-04804-0

Gradient Expectations

Structure, Origins, and Synthesis of Predictive Neural Networks

Keith L. Downing

An insightful investigation into the mechanisms underlying the predictive functions of neural networks — and their ability to chart a new path for AI.

Prediction is a cognitive advantage like few others, inherently linked to our ability to survive and thrive. Our brains are awash in signals that embody prediction. Can we extend this capability more explicitly into synthetic neural networks to improve the function of AI and enhance its place in our world? *Gradient Expectations* is a bold effort by Keith L. Downing to map the origins and anatomy of natural and artificial neural networks to explore how, when designed as predictive modules, their components might serve as the basis for the simulated evolution of advanced neural network systems.

Downing delves into the known neural architecture of the mammalian brain to illuminate the structure of predictive networks and determine more precisely how the ability to predict might have evolved from more primitive neural circuits. He then surveys past and present computational neural models that leverage predictive mechanisms with biological plausibility, identifying elements, such as gradients, that natural and artificial networks share. Behind well-founded predictions lie gradients, Downing finds, but of a different scope than those that belong to today's deep learning. Digging into the connections between predictions and gradients, and their manifestation in the brain and neural networks, is one compelling example of how Downing enriches both our understanding of such relationships and their role in strengthening AI tools.

Synthesizing critical research in neuroscience, cognitive science, and connectionism, *Gradient Expectations* offers unique depth and breadth of perspective on predictive neuralnetwork models, including a grasp of predictive neural circuits that enables the integration of computational models of prediction with evolutionary algorithms.

Keith L. Downing is Professor of Artificial Intelligence and Artificial Life at the Norwegian University of Science and Technology and the author of *Intelligence Emerging: Adaptivity and Search in Evolving Neural Systems* (MIT Press).

computer science | cognitive science

July | 7 x 9, 280 pp. | 5 color illus., 97 b&w illus.

US \$60.00X/\$79.00 CAN paper 978-0-262-54561-7

Distributional Reinforcement Learning

Marc G. Bellemare, Will Dabney, and Mark Rowland

The first comprehensive guide to distributional reinforcement learning, providing a new mathematical formalism for thinking about decisions from a probabilistic perspective.

Distributional reinforcement learning is a new mathematical formalism for thinking about decisions. Going beyond the common approach to reinforcement learning and expected values, it focuses on the total reward or return obtained as a consequence of an agent's choices—specifically, how this return behaves from a probabilistic perspective. In this first comprehensive guide to distributional reinforcement learning, Marc G. Bellemare, Will Dabney, and Mark Rowland, who spearheaded development of the field, present its key concepts and review some of its many applications. They demonstrate its power to account for many complex, interesting phenomena that arise from interactions with one's environment.

The authors present core ideas from classical reinforcement learning to contextualize distributional topics and include mathematical proofs pertaining to major results discussed in the text. They guide the reader through a series of algorithmic and mathematical developments that, in turn, characterize, compute, estimate, and make decisions on the basis of the random return. Practitioners in disciplines as diverse as finance (risk management), computational neuroscience, computational psychiatry, psychology, macroeconomics, and robotics are already using distributional reinforcement learning, paving the way for its expanding applications in mathematical finance, engineering, and the life sciences. More than a mathematical approach, distributional reinforcement learning represents a new perspective on how intelligent agents make predictions and decisions.

Marc G. Bellemare is Senior Staff Research Scientist, Google Research and Adjunct Professor, McGill University. Will Dabney is Senior Staff Research Scientist, DeepMind. Mark Rowland is Senior Research Scientist, DeepMind.

computer science | mathematics May | 6 x 9, 400 pp. | 48 illus. **US \$60.00X/\$79.00 CAN cloth** 978-0-262-04801-9

Adaptive Computation and Machine Learning series

Insolvent

How to Reorient Computing for Just Sustainability

Christoph Becker

How we can enact meaningful change in computing to meet the urgent need for sustainability and justice.

The deep entanglement of information technology with our societies has raised hope for a transition to more sustainable and just communities—those that phase out fossil fuels, distribute public goods fairly, allow free access to information, and waste less. In principle, computing should be able to help. But in practice, we live in a world in which opaque algorithms steer us toward misinformation and unsustainable consumerism. Insolvent shows why computing's dominant frame of thinking is conceptually insufficient to address our current challenges, and why computing continues to incur societal debts it cannot pay back. Christoph Becker shows how we can reorient design perspectives in computer science to better align with the values of sustainability and justice.

Becker positions the role of information technology and computing in environmental sustainability, social justice, and the intersection of the two, and explains why designing IT for just sustainability is both technically and ethically challenging. Becker goes on to argue that computing could be aided by critical friends—disciplines that draw on critical social theory, feminist thought, and systems thinking—to make better sense of its role in society. Finally, Becker demonstrates that it is possible to fuse critical perspectives with work in computer science, showing new and fruitful directions for computing professionals and researchers to pursue.

Christoph Becker is Associate Professor of Information, Director of the Digital Curation Institute, and a member of the School of the Environment at the University of Toronto. He is also cofounder of the Karlskrona Initiative for Sustainability Design.

technology June | 6 x 9, 384 pp. | 20 illus.

US \$55.00X/\$73.00 CAN paper 978-0-262-54560-0

The Space between Look and Read

Designing Complementary Meaning

Susan M. Hagan

Unleashing the potential that can be found in the space between words and images.

Designers have long understood that image, text, and typeface can work together to produce new meanings, creating semiotic registers impossible to achieve with image or text alone. In *The Space Between Look and Read*, a study of complementary meaning in design, Susan Hagan presents a framework, called Inter-play, which explains how these new meanings emerge. Inter-play is not simply an analytical tool; it is also a method for using complementary meaning to encourage critical thinking in design audiences.

Drawing from cognitive psychology, art theory, discourse analysis, design, and rhetoric, Hagan breaks down the synthesis of looking and reading into a complex series of registers, which are revealed through examples of excellent design. Thus, the book is both a theoretical exploration of how designers communicate and a casebook in communication well achieved.

From the physiology of vision to the limits of language, from Allan Paivio to Uwe Loesch, *The Space Between Look and Read* expands our understanding of complementary design and argues that by engaging audiences through multiple cognitive registers, complementary design serves as a cognitive tool, helping audiences reach new conclusions about complex problems.

Susan M. Hagan is Associate Teaching Professor in Information Systems at Carnegie Mellon University's Pittsburgh and Qatar campuses.

design

April | 6 x 9, 232 pp. | 44 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54547-1

Design Thinking, Design Theory series

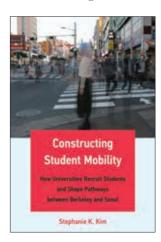
Constructing Student Mobility

How Universities Recruit Students and Shape Pathways between Berkeley and Seoul

Stephanie K. Kim

How universities in the US and South Korea compete for global student markets — and how university financials shape students' lives.

The popular image of the international student in the American imagination is one of affluence, access, and



privilege, but is that image accurate? In this provocative book, higher education scholar Stephanie Kim challenges this view, arguing that universitiesnot the students-allow students their international mobility. Focusing on universities in the US and South Korea that aggressively grew their student pools in the aftermath of the Great Recession, Kim shows the lengths universities will go to expand enrollments as they draw from the same pool of top South Korean students.

Kim closely follows several students attending a university in Berkeley and a university in Seoul. They have chosen different paths to study abroad or learn at home, but all are seeking a transformative educational experience. To show how student mobility depends on institutional structures, Kim demonstrates how the universities themselves compel students' choices to pursue higher learning at one institution or another. She also profiles the people who help ensure the global student supply chain runs smoothly, from education agents in South Korea to community college recruiters in California. Using ethnographic research gathered over a ten-year period in which international admissions were impacted by the Great Recession, changes in US presidential administrations, and the COVID-19 pandemic, Constructing Student Mobility provides crucial insights into the purpose, effects, and future of student recruitment across the Pacific.

Stephanie K. Kim's research on international student mobility emerged from her work at the University of California, Berkeley and as a Fulbright scholar at Yonsei University in South Korea. She is Associate Professor of the Practice in the School of Continuing Studies at Georgetown University, where she also directs the master's program in Higher Education Administration.

education

April | 6 x 9, 226 pp. | 4 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54514-3

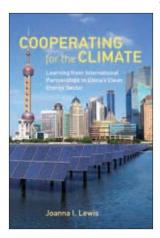
Cooperating for the Climate

Learning from International Partnerships in China's Clean Energy Sector

Joanna I. Lewis

The intricacies, politics, and prospects of international cooperation, particularly with China, to address climate change.

No country in the world releases more greenhouse gases than China. And no country has a greater capacity—and



ambition—to mitigate climate change. This deeply informed, urgently needed book examines the global cooperation such a monumental effort demands and inspires, necessarily focusing on China's outsize role in the development and dissemination of clean energy technologies. Drawing on decades of work in clean energy and climate technology and policy, Joanna Lewis provides a clear and thorough account of the motivations, science,

and politics behind international clean energy technology collaboration—and an in-depth look at why different clean energy partnerships result in different political and technological outcomes.

The first comprehensive analysis of international clean energy partnerships with China, *Cooperating for the Climate* is based on hundreds of interviews with government officials, researchers, and private companies involved in these collaborative initiatives around the world. Its insights into energy innovation and international relations, as well as global environmental politics, will help international stakeholders navigate the complex political bureaucracy governing clean energy development in China and perhaps chart a productive pathway for moving the world toward a low-carbon future.

Joanna I. Lewis is Provost's Distinguished Associate Professor of Energy and Environment and Director of the Science, Technology and International Affairs Program at Georgetown University's Edmund A. Walsh School of Foreign Service. She is the author of the award-winning book *Green Innovation in China* and was a lead author of the Intergovernmental Panel on Climate Change's Fifth Assessment Report.

environmental studies | politics March | 6 x 9, 370 pp. | 41 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54482-5

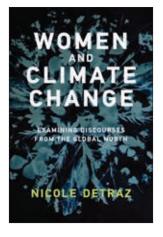
Women and Climate Change

Examining Discourses from the Global North

Nicole Detraz

How ideas of gender and climate change intersect with our path to a livable future.

When you think "climate change," who comes to mind? Who's doing the science, the reporting, the protesting, the suffering?



In *Women and Climate Change*, Nicole Detraz asks where women in the Global North figure in the picture, what that means, and why it matters. Her answers fill critical gaps in what we know about the politics of climate change and gender.

Representations of climate change, like perceptions of gender, can make a profound difference in understanding expectations and actions around social, cultural, and political issues. Interviewing women

living in the Global North who work in the climate change sphere, Detraz examines the crucial links between notions of climate change and gender—in particular, how women are portrayed in climate change debates. Where is their presence or absence recognized? What tasks are they expected to perform? What factors influence their roles? The answers provide a nuanced account of the characteristics, conditions, and positions associated with women's activities in and experiences of climate change—a multifaceted portrayal of women that also demonstrates the generalization and essentializing that can hinder goals of sustainability and gender justice.

Because gender is a social construction, Detraz reminds us, change is possible. Her book offers the suggestion, and the hope, that identifying connections between ideas of gender and climate change might also alter our vision of a livable future.

Nicole Detraz is Professor of Political Science at the University of Memphis. She is the author of *Gender and the Environment* and *Environmental Security and Gender*.

environmental studies | politics

February | 6 x 9, 268 pp.

US \$40.00X/\$54.00 CAN paper 978-0-262-54207-4

Global Shifts

Business, Politics, and Deforestation in a Changing World Economy

Philip Schleifer

What global shifts in markets and power mean for the politics and governance of sustainability.

In recent years, major shifts in global markets from North to South have created a new geography of trade and consumption, particularly in the agricultural sector. How this shift affects the governance of sustainability, and thus the future of the planet, is the pressing topic Philip Schleifer takes up in this book. The processes of twenty-first-century globalization are fundamentally changing the politics and governance of commodity production, Schleifer argues, with profound implications for the environment in the foodproducing countries of the Global South.

At the center of Schleifer's study are Brazil and Indonesia-two key sites of experimentation in new models of global environmental and commodity governance-where palm oil and soy supply chains have seen unprecedented degrees of private environmental governance in recent years. However, instead of transforming these industries, the diffusion of transnational sustainability standards has accompanied a worsening ecological crisis, with mounting evidence of increasingly strong links between deforestation and globalization in twenty-first-century agricultural trade. To uncover the causes of this governance failure, Schleifer develops a multi-level framework for analyzing how contemporary globalization is reconfiguring the political economies of such industries. The result is the first comprehensive analysis of the shift of global agricultural trade to the South and the deepening crisis of commoditydriven deforestation-and a complex and evolving picture of both the risks and opportunities for sustainability presented by this transformative shift.

Philip Schleifer is Associate Professor of Transnational Governance at the Political Science Department of the University of Amsterdam.

economics | environmental studies

June | 6 x 9, 280 pp. | 20 illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-54553-2 Earth System Governance series

Sewer of Progress

Corporations, Institutionalized Corruption, and the Struggle for the Santiago River

Cindy McCulligh

A creative and comprehensive exploration of the institutional forces undermining the management of environments critical to public health.

For almost two decades, the citizens of Western Mexico have called for a cleanup of the Santiago River, a water source so polluted it emanates an overwhelming acidic stench. Toxic clouds of foam lift off the river in a strong wind. In *Sewer of Progress*, Cindy McCulligh examines why industrial dumping continues in the Santiago despite the corporate embrace of social responsibility and regulatory frameworks intended to mitigate environmental damage. The fault, she finds, lies in a disingenuous discourse of progress and development that privileges capitalist growth over the health and well-being of ecosystems.

Rooted in research on institutional behavior and corporate business practices, Sewer of Progress exposes a type of regulatory greenwashing that allows authorities to deflect accusations of environmental dumping while "regulated" dumping continues in an environment of legal certainty. For transnational corporations, this type of simulation allows companies to take advantage of double standards in environmental regulations, while presenting themselves as socially responsible and green global actors. Through this inversion, the Santiago and other rivers in Mexico have become sewers for urban and industrial waste. Institutionalized corruption, a concept McCulligh introduces in the book, is the main culprit, a system that permits and normalizes environmental degradation, specifically in the creation and enforcement of a regulatory framework for wastewater discharge that prioritizes private interests over the common good.

Through a research paradigm based in institutional ethnography and political ecology, *Sewer of Progress* provides a critical, in-depth look at the power relations subverting the role of the state in environmental regulation and the maintenance of public health.

Cindy McCulligh is Professor Researcher at the Center for Research and Advanced Studies in Social Anthropology (CIESAS) in Guadalajara, Mexico.

environmental studies July | 6 x 9, 346 pp. | 5 illus.

US \$50.00X/\$66.00 CAN paper 978-0-262-54592-1

Urban and Industrial Environments series

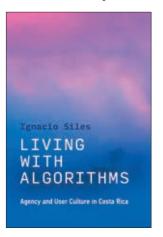
Living with Algorithms

Agency and User Culture in Costa Rica

Ignacio Siles

A nuanced account from a user perspective of what it's like to live in a datafied world.

We live in a media-saturated society that increasingly transforms our experiences, relations, and identities into



data others can analyze and monetize. Algorithms are key to this process, surveilling our most mundane practices, and to many, their control over our lives seems absolute. In *Living with Algorithms*, Ignacio Siles critically challenges this view by surveying user dynamics in the global south across three algorithmic platforms—Netflix, Spotify, and TikTok—and finds, surprisingly, a more balanced relationship.

Drawing on a wealth of

empirical evidence that privileges the user over the corporate, Siles examines the personal relationships that have formed between users and algorithms as Latin Americans have integrated these systems into the structures of everyday life, enacted them ritually, participated in public with and through them, and thwarted them. Sometimes users follow algorithms, Siles finds, and sometimes users resist them. At times, users do both. Agency lies in the navigation of the spaces in-between.

By analyzing what we do with algorithms rather than what algorithms do to us, *Living with Algorithms* clarifies the debate over the future of datafication and whether we have a say in its development. Concentrating on an understudied region of the global south, the book provides a new perspective on the commonalities and differences among users within a global ecology of technologies.

Ignacio Siles is Professor of Media and Technology Studies in the School of Communication at Universidad de Costa Rica. He is the author of *A Transnational History of the Internet in Central America: Networks, Integration, and Development* and *Networked Selves: Trajectories of Blogging in the United States and France.*

technology April | 6 x 9, 234 pp. | 6 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54542-6

Information Society series

Spanish language rights not available

Evolvability

A Unifying Concept in Evolutionary Biology?

edited by Thomas F. Hansen, David Houle, Mihaela Pavlicev, and Christophe Pélabon

Essays on evolvability from the perspectives of quantitative and population genetics, evolutionary developmental biology, systems biology, macroevolution, and the philosophy of science.

Evolvability—the capability of organisms to evolve—wasn't recognized as a fundamental concept in evolutionary theory until 1990. Though there is still some debate as to whether it represents a truly new concept, the essays in this volume emphasize its value in enabling new research programs and facilitating communication among the major disciplines in evolutionary biology. The contributors, many of whom were instrumental in the development of the concept of evolvability, synthesize what we have learned about it over the past thirty years. They focus on the historical and philosophical contexts that influenced the emergence of the concept and suggest ways to develop a common language and theory to drive further evolvability research.

The essays, drawn from a workshop on evolvability hosted in 2019–2020 by the Center of Advanced Study at the Norwegian Academy of Science and Letters, in Oslo, provide scientific and historical background on evolvability. The contributors represent different disciplines of evolutionary biology, including quantitative and population genetics, evolutionary developmental biology, systems biology and macroevolution, as well as the philosophy of science. This plurality of approaches allows researchers in disciplines as diverse as developmental biology, molecular biology, and systems biology to communicate with those working in mainstream evolutionary biology. The contributors also discuss key questions at the forefront of research on evolvability.

Thomas Hansen is Professor of Biology at the University of Oslo.
David Houle is Professor of Biology at Florida State University.
Mihaela Pavlicev is Professor of Theoretical Evolutionary Biology at the University of Vienna. Christophe Pélabon is Professor of Biology at the Norwegian University of Science and Technology.

biology June | 7 x 10, 448 pp. | 49 illus.

US \$65.00X/\$86.00 CAN paper 978-0-262-54562-4

Vienna Series in Theoretical Biology series

Creative Hustling

Women Making and Distributing Films from Nairobi

Robin Steedman

The first book-length study of Nairobi-based female filmmakers — and how their dogged pursuit of opportunities, innovation, and cultural support is defining an industry.

Nairobi, the capital of Kenya, is home to something extraordinary and unlikely: in this city, the most critically



acclaimed filmmakers—both directors and producers—are women. Yet, across the globe, women make up less than 10 percent of film directors. In *Creative Hustling*, Robin Steedman takes a closer look at these remarkable women filmmakers, viewing them not only as auteurs, but also as entrepreneurs, who are taking the lead in creating a vibrant, and atypical, screen media industry. To understand their achievement, Steedman

theorizes hustling as not only a practice born out of necessity but also an inventive labor in its own right—one that can create new spaces of community by carving new entrepreneurial pathways.

Through original empirical field research gathered over eight months in Nairobi, Steedman describes how female filmmakers go about trying to create their films, as well as the challenges they face in distributing those films in their local market. Along the way, she traces the history of the industry over the last fifteen years, the lack of state support for these filmmakers' undertakings, the low social standing of the profession, and the transnational conflicts that arise when Euro-American funding is at the heart of Kenyan cinema.

Creative Hustling is a major contribution to the task of de-Westernizing media industry studies, imparting important lessons about what it takes to create and distribute creative work in a global age increasingly marked by uncertain work.

Robin Steedman is Postdoctoral Researcher in Creative and Cultural Industries in Africa at Copenhagen Business School. Her research and previous publications focus on the creative industries in Africa, particularly on the intersection of gender and class.

media studies February | 6 x 9, 224 pp.

US \$35.00X/\$47.00 CAN paper 978-0-262-54483-2 Distribution Matters series

The Videogame Industry Does Not Exist

Why We Should Think Beyond Commercial Game Production

Brendan Keogh

The precarious reality of videogame production beyond the corporate blockbuster studios of North America.

The videogame industry, we're invariably told, is a multibillion-dollar, high-tech business conducted by large corporations in certain North American, European, and East Asian cities. But most videogames today, in fact, are made by small clusters of people working on shoestring budgets, relying on existing, freely available software platforms, and hoping, often in vain, to rise to stardom—in short, people working like artists. Aiming squarely at this disconnect between perception and reality, *The Videogame Industry Does Not Exist* presents a much more accurate and nuanced picture of how the vast majority of videogame-makers work—a picture that reveals the diverse and precarious communities, identities, and approaches that make videogame production a significant cultural practice.

Drawing on insights provided by over 400 game developers across Australia, North America, Europe, and Southeast Asia, Brendan Keogh develops a new framework for understanding videogame production as a cultural field in all its complexity. Part-time hobbyists, aspirational students, client-facing contractors, struggling independents, artist collectives, and tightly knit local scenes—all have a place within this model. But proponents of non-commercial game making don't exist in isolation; Keogh shows how they and their commercial counterparts are deeply interconnected and codependent in the field of videogame production.

A cultural intervention, *The Videogame Industry Does Not Exist* challenges core assumptions about videogame production—ideas about creativity, professionalism, labor, diversity, education, globalization, and community. Its in-depth, complex portrayal suggests new ways of seeing, and engaging in, the videogame industry that really does exist.

Brendan Keogh is Senior Lecturer in the School of Communication and a chief investigator of the Digital Media Research Centre at the Queensland University of Technology. His books include of *A Play of Bodies: How We Perceive Videogames* and, as coauthor, *The Unity Game Engine* and *The Circuits of Cultural Software*.

game studies April | 6 x 9, 248 pp. | 3 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54540-2

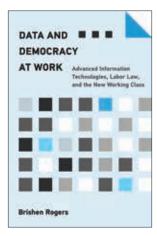
Data and Democracy at Work

Advanced Information Technologies, Labor Law, and the New Working Class

Brishen Rogers

An exploration of how major companies have used advanced information technologies to limit worker power, and how labor law reform could reverse that trend.

As our economy has shifted away from industrial production and service industries have become dominant, many of the



nation's largest employers are now in fields like retail, food service, logistics, and hospitality. These companies have turned to data-driven surveillance technologies that operate over a vast distance, enabling cheaper oversight of massive numbers of workers. *Data and Democracy at Work* argues that companies often use new data-driven technologies as a power resource—or even a tool of class domination—and that our labor laws allow them to do so.

Employers have established broad rights to use technology to gather data on workers and their performance, to exclude others from accessing that data, and to use that data to refine their managerial strategies. Through these means, companies have suppressed workers' ability to organize and unionize, thereby driving down wages and eroding working conditions.

Labor law today encourages employer dominance in many ways—but labor law can also be reformed to become a tool for increased equity. The COVID-19 pandemic and subsequent Great Resignation have indicated an increased political mobilization of the so-called essential workers of the pandemic, many of them service industry workers. This book describes the necessary legal reforms to increase workers' associational power and democratize workplace data, establishing more balanced relationships between workers and employers and ensuring a brighter and more equitable future for us all.

Brishen Rogers is Professor of Law at Georgetown University Law Center. His recent scholarship has been published in leading law reviews including the Yale Law Journal, Harvard Civil Rights-Civil Liberties Law Review, and the Texas Law Review. He has also written for the Boston Review, the New York Times, Onlabor.org, and the Law & Political Economy Blog, or Ipeblog.org. Professor Rogers' scholarship has also been cited in landmark decisions by the California Supreme Court and the Court of Justice of the European Union.

law | technology March | 6 x 9, 288 pp.

US \$50.00X/\$66.00 CAN paper 978-0-262-54513-6

On Linearization

Toward a Restrictive Theory

Guglielmo Cinque

The first attempt at a restrictive theory of the linear order of sentences and phrases of the world's languages, by one of the founders of cartographic syntax.

Linearization, or the typical sequence of words in a sentence, varies tremendously from language to language. Why, for



example, does the English phrase "a white table" need a different word order from the French phrase "une table blanche," even though both refer to the same object? Guglielmo Cinque challenges the current understanding of word order variation, which assumes that word order can be dealt with simply by putting a head either before or after its complements and modifiers. The subtle variations in word order, he says, can provide a

window into understanding the deeper structure of language and are in need of a sophisticated explanation.

The bewildering variation in word order among the languages of the world, says Cinque, should not dissuade us from researching what, if anything, determines which orders are possible (and attested/attestable) and which orders are impossible (and not attested/non-attestable), both when they maximally conform to the "head-final" or "head-initial" types and when they depart from them to varying degrees. His aim is to develop a restrictive theory of word order variation—not just a way to derive the ideal head-initial and head-final word orders but also the mixed cases.

Guglielmo Cinque is Professor Emeritus of Linguistics at Ca' Foscari University, Venice, Italy. He is the author of *Types of Ā-Dependencies* and *The Syntax of Adjectives* (both published by MIT Press).

linguistics

March | 6 x 9, 220 pp.

US \$40.00X/\$54.00 CAN paper 978-0-262-54495-5

Linguistic Inquiry Monographs series

Parody in the Age of Remix

Mashup Creativity vs. the Takedown

Ragnhild Brøvig

The art of mashup music, its roots in parody, and its social and legal implications.

Parody needn't recognize copyright—but does an algorithm recognize parody? The ever-increasing popularity of remix culture and mashup music, where parody is invariably at play, presents a conundrum for internet platforms, with their extensive automatic, algorithmic policing of content. Taking a wide-ranging look at mashup music—the creative and technical considerations that go into making it; the experience of play, humor, enlightenment, and beauty it affords; and the social and legal issues it presents—*Parody in the Age of Remix* offers a pointed critique of how society balances the act of regulating art with the act of preserving it.

In several jurisdictions, national and international, parody is exempted from copyright laws. And mashups should be understood as a form of parody, Ragnhild Brøvig contends, and thus protected from removal from hosting platforms. Nonetheless, current copyright-related content-moderation regimes, relying on algorithmic detection and automated decision making, frequently eliminate what might otherwise be deemed gray-area content—to the detriment of human listeners and, especially, artists. Given the inaccuracy of takedowns, *Parody in the Age of Remix* makes a persuasive argument for greater protection for remix creativity in the future—but it also suggests that the content moderation challenges facing mashup producers and other remixers are symptomatic of larger societal issues.

Ragnhild Brøvig is Professor in the Department of Musicology at the University of Oslo.

media studies

June | 6 x 9, 320 pp. | 4 illus.

US \$50.00X/\$66.00 CAN paper 978-0-262-54539-6

The Science-Music Borderlands

Reckoning with the Past and Imagining the Future

edited by Elizabeth H. Margulis, Psyche Loui, and Deirdre Loughridge

Interdisciplinary essays on music psychology that integrate scientific, humanistic, and artistic ways of knowing in transformative ways.

Researchers using scientific methods and approaches to advance our understanding of music and musicality have not yet grappled with some of the perils that humanistic fields concentrating on music have long articulated. In this edited volume, established and emerging researchers neuroscientists and cognitive scientists, musicians, historical musicologists, and ethnomusicologists—build bridges between humanistic and scientific approaches to music studies, particularly music psychology. Deftly edited by Elizabeth H. Margulis, Psyche Loui, and Deirdre Loughridge, *The Science-Music Borderlands* embodies how sustained interaction among disciplines can lead to a richer understanding of musical life.

The essays in this volume provide the scientific study of music with its first major reckoning, exploring the intellectual history of the field and its central debates, while charting a path forward. *The Science-Music Borderlands* is essential reading for people studying music from any disciplinary background. It will also interest those working at the intersection of music and science, such as music teachers, performers, composers, and music therapists.

Elizabeth H. Margulis is Professor and Director of the Music Cognition Lab at Princeton University. She is the author of *On Repeat: How Music Plays the Mind* and *The Psychology of Music: A Very Short Introduction*. **Psyche Loui** is Associate Professor of Music and Director of the Music, Imaging, and Neural Dynamics Lab at Northeastern University. **Deirdre Loughridge** is Associate Professor of Music at Northeastern University. She is the author of *Haydn's Sunrise, Beethoven's Shadow: Audiovisual Culture and the Emergence of Musical Romanticism*.

music | psychology May | 7 x 9, 428 pp. | 19 illus.

US \$60.00X/\$79.00 CAN paper 978-0-262-04764-7

Recovering the Later Georg Lukács

A Study on the Unity of His Thought

Matthew J. Smetona

New resources for the critique of capitalism in culture from the late writings of Georg Lukács, one of the first authors in the tradition of Western Marxism.

The Hungarian literary critic, philosopher, and Marxist social theorist Georg Lukács is best known for his 1923 *History and Class Consciousness*, in which he offered an influential critique of reification from the standpoint of a dialectical conception of totality. While Lukács's early works have been central to the study of Marxist thought, his later works have often been dismissed as political accommodations to Stalinism. In this new study, Matthew Smetona argues for a revisionist interpretation of Lukács's later writings on topics as diverse as aesthetics, politics, and ontology.

Smetona demonstrates that these writings reveal a methodological unity that follows directly from *History and Class Consciousness*, in which realism, in both literary and extraliterary senses, becomes the basis for the critique of reification. As Lukács had demonstrated, reification is that process by which the social relations between persons seem to take on the character of a thing. Rooted in Marx's concept of commodity fetishism, the critique of reification proved, in Lukács's hands, to be a flexible tool capable of clarifying all manner of obfuscations that arise within the social relations that capitalism produces. To recover the later work of Lukács is to open up new horizons for Marxist cultural criticism.

Matthew J. Smetona is Assistant Professor of Instruction at Temple University. His past publications include *Hegel's Logical Comprehension of the Modern State* (2013).

philosophy April | 6 x 9, 416 pp.

US \$75.00X/\$99.00 CAN paper 978-0-262-54537-2

Context Changes Everything

How Constraints Create Coherence

Alicia Juarrero

From the influential author of *Dynamics in Action*, how the concepts of constraints provide a way to rethink relationships, opening the way to intentional, meaningful causation.

Grounding her work in the problem of causation, Alicia Juarrero challenges previously held beliefs that only forceful impacts are causes. Constraints, she claims, bring about effects as well, and they enable the emergence of coherence. In *Context Changes Everything*, Juarrero shows that coherence is induced by enabling constraints, not forceful causes, and that the resulting coherence is then maintained by constitutive constraints. Constitutive constraints, in turn, become governing constraints that regulate and modulate the way coherent entities behave. Using the tools of complexity science, she offers a rigorously scientific understanding of identity, hierarchy, and top-down causation, and in so doing, presents a new way of thinking about the natural world.

Juarrero argues that personal identity, which has been thought to be conferred through internal traits (essential natures), is grounded in dynamic interdependencies that keep coherent structures whole. This challenges our ideas of identity, as well as the notion that stability means inflexible rigidity. On the contrary, stable entities are brittle and cannot persist. Complexity science, says Juarrero, can shape how we meet the world, how what emerges from our interactions finds coherence, and how humans can shape identities that are robust and resilient. This framework has significant implications for sociology, economics, political theory, business, and knowledge management, as well as psychology, religion, and theology. It points to a more expansive and synthetic philosophy about who we are and about the coherence of living and nonliving things alike.

Alicia Juarrero is President and Cofounder of Vector Analytica, Inc., and a Research Associate at the University of Miami. She is the author of *Dynamics in Action* (MIT Press).

cognitive science

June | 6 x 9, 280 pp. | 2 illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-54566-2

Mind in Nature

John Dewey, Cognitive Science, and a Naturalistic Philosophy for Living

Mark L. Johnson and Jay Schulkin

A dialogue between contemporary neuroscience and John Dewey's seminal philosophical work *Experience and Nature*, exploring how the bodily roots of human meaning, selfhood, and values provide wisdom for living.

The intersection of cognitive science and pragmatist philosophy reveals the bodily basis of human meaning, thought, selfhood, and values. John Dewey's revolutionary account of pragmatist philosophy *Experience and Nature* (1925) explores humans as complex social animals, developing through ongoing engagement with their physical, interpersonal, and cultural environments. Drawing on recent research in biology and neuroscience that supports, extends, and, on occasion, reformulates some of Dewey's seminal insights, embodied cognition expert Mark L. Johnson and behavioral neuroscientist Jay Schulkin develop the most expansive intertwining of Dewey's philosophy with biology and neuroscience to date.

The result is a positive, life-affirming understanding of how our evolutionary and individual development shapes who we are, what we can know, where our deepest values come from, and how we can cultivate wisdom for a meaningful and intelligent life.

Mark L. Johnson is Professor Emeritus of Philosophy at the University of Oregon. He is a developer of embodied cognition theory, focusing on the philosophical implications of human embodiment for meaning, conceptualization, reasoning, values, and knowing. He has written multiple books on cognitive science and embodiment, including most recently *Out of the Cave: A Natural Philosophy of Mind and Knowing* (MIT Press). Jay Schulkin is Research Professor in the College of Medicine at the University of Washington. Many of his previous books in neuroscience and philosophy integrate a pragmatist and evolutionary perspective with contemporary cognitive and neural science. He has published two previous books with the MIT Press, *Roots of Social Sensibility and Neural Function* and *Rethinking Homeostasis*.

philosophy | cognitive science March | 6 x 9, 288 pp. | 1 color illus.

US \$60.00X/\$79.00 CAN paper 978-0-262-54516-7

The Phoenix Complex

A Philosophy of Nature

Michael Marder

An innovative, wide-ranging consideration of the global ecological crisis and its deep philosophical and theological roots.

Global crises, from melting Arctic ice to ecosystem collapse and the sixth mass extinction, challenge our age-old belief in nature as a phoenix with an infinite ability to regenerate itself from the ashes of destruction. Moving from antiquity to the present and back, Michael Marder provides an integrated examination of philosophies of nature drawn from traditions around the world to illuminate the theological, mythical, and philosophical origins of the contemporary environmental emergency. From there, he probes the contradictions and deadlocks of our current predicament to propose a philosophy of nature for the twenty-first century.

As Marder analyzes our reliance on the image and idea of the phoenix to organize our thoughts about the natural world, he outlines the obstacles in the path of formulating a revitalized philosophy of nature. His critical exposition of the phoenix complex draws on Chinese, Indian, Russian, European, and North African traditions. Throughout, Marder lets the figure of the phoenix guide readers through theories of immortality, intergenerational and interspecies relations, infinity compatible with finitude, resurrection, reincarnation, and a possibility of liberation from cycles of rebirth. His concluding thoughts on a phoenix-suffused philosophy of nature and political thought extend from the Roman era to the writings of Hannah Arendt.

Michael Marder is a philosopher who teaches at the University of the Basque Country. His past books include *Philosophy for Passengers* (MIT Press), *The Philosopher's Plant: An Intellectual Herbarium*, and *Plant-Thinking: A Philosophy* of Vegetal Life.

philosophy July | 6 x 9, 308 pp.

US \$45.00X/\$60.00 CAN paper 978-0-262-54570-9

Spanish, French, and Italian language rights are not available.

Picture Research

The Work of Intermediation from Pre-Photography to Post-Digitization

Nina Lager Vestberg

An intimate foray into the invisible work that made it possible for pictures to circulate in print and online from the 1830s to the 2010s.

Picture Research focuses on how pictures were saved, stored, and searched for in a time before scanners, servers, and search engines, and describes the dramatic difference it made when images became scannable, searchable, and distributable via the internet. While the camera, the darkroom, and the printed page are well-known sites of photographic production that have been replaced by cell phones, imaging software, and websites, the cultural intermediaries of masscirculation photography—picture librarians and researchers, editors, and archivists—are less familiar. In this book, Nina Lager Vestberg artfully details the range of research skills, reproduction machinery, and communication infrastructures that was needed to make pictures available to a public before digitization.

Drawing on documents and representations across a range of cultural expressions, *Picture Research* reveals the intermediation that has been performed by skilled workers in a variety of roles, making use of pre-photographic, photographic, and digital machineries of capture, accumulation, extraction, and transmission. Tracing a history of the modern pictorial economy from the pre-photographic 1830s to the post-digitized 2010s, it makes visible and explicit the invisible labor that has built—and still sustains—the visual commodity culture of everyday life.

Nina Lager Vestberg is Professor of Visual Culture at the Norwegian University of Science and Technology. She is a member of the editorial board of *History of Photography*, and her work has been published in journals ranging from *Journal of Visual Culture* to *Museum Management and Curatorship*.

media studies

June | 6 x 9, 240 pp. | 12 color illus., 21 b&w illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-04531-5

Leonardo Book series

Catastrophes, Confrontations, and Constraints

How Disasters Shape the Dynamics of Armed Conflicts

Tobias Ide

A ground-breaking study on how natural disasters can escalate or defuse wars, insurgencies, and other strife.

Armed conflict and disasters are two key challenges of the twenty-first century. The number of armed conflicts has never been higher since the end of World War II. At the same time, disasters have increased in frequency and intensity over the past two decades due to climate change, urbanization, and persistent inequalities. Providing the first comprehensive analysis of the interplay of natural disasters and armed conflict, this book offers an incisive analysis that explains whether, how, and in which contexts disasters facilitate the escalation or de-escalation of armed conflicts as well as whether, how, and in which contexts combatants exploit or fail to exploit these catastrophes.

Tobias Ide begins by laying out a comprehensive framework that explains the link between disasters and the (de-)escalation of armed conflict. From there, he presents 36 case studies of earthquakes, droughts, floods and storms in Africa, the Middle East, Asia, and Latin America. He also covers the implications of COVID-19 on armed conflicts in Iraq, Afghanistan, Nigeria, and the Philippines. Finally, he combines qualitative insights with quantitative data in a unique multi-method design to analyze when disasters facilitate the intensification or de-escalation of civil wars.

Catastrophes, Confrontations, and Constraints adds a wealth of invaluable evidence to current debates on climate change, environmental stress, and security, while providing professionals and students with timely data for their own investigations.

Tobias Ide is Senior Lecturer in Politics and International Relations at Murdoch University Perth and Director of the Environmental Peacebuilding Association.

history | environmental studies

June | 6 x 9, 304 pp. | 12 illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-54555-6

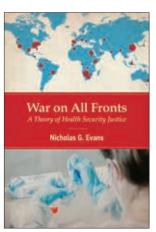
War on All Fronts

A Theory of Health Security Justice

Nicholas G. Evans

An argument for the centrality of rights in health security, and how to apply ethical principles to protecting those rights during public health crises.

In recent years, efforts to respond to infectious diseases have been described in terms of national and global security,



leading to the formation of the field of "health security." In *War* on All Fronts, Nicholas G. Evans provides a novel theory of just health security and its relation to the practice of conventional public health. Using COVID-19 as a jumping off point to examine wider issues, including how the US thinks about and prepares for pandemics, Evans shows the flaws in using the "war metaphor" and how any serious understanding of health security must square with human rights—

even when a disease poses a threat to national security.

Evans asks what ethical principles justify declaring, and taking action during, a public health emergency such as the ongoing COVID-19 pandemic. The relevant principles, he argues, parallel those of the ethics of armed conflict. Just war theory, properly understood, begins with pacifism and a commitment to the right not to be killed and then steps back to ask under what limited conditions it is permissible to kill. In a similar way, a just health security must also begin with the idea that public health should hold human rights sacrosanct and then ask under what limited conditions other concerns might prevail. Evans's overall goal is to formulate a guide to action, particularly as the world deals with the fallout of the COVID-19 pandemic. Turning to the transition from war back to peace in public health, he looks at reparation, rebuilding, and the accountability of actors during the crisis.

Nicholas G. Evans is Associate Professor and Chair of the Department of Philosophy at the University of Massachusetts Lowell.

public health | bioethics

May | 6 x 9, 280 pp.

US \$45.00X/\$60.00 CAN paper 978-0-262-54543-3

Data Paradoxes

The Politics of Intensified Data Sourcing in Contemporary Healthcare

Klaus Hoeyer

Why healthcare cannot—and should not—become data-driven, despite the many promises of intensified data sourcing.

In contemporary healthcare, everybody seems to want more data, of higher quality, on more people, and to use this data for a wider range of purposes. In theory, such pervasive data collection should lead to a healthcare system in which data can quickly, efficiently, and unambiguously be interpreted and provide better care for patients, more efficient administration, enhanced options for research, and accelerated economic growth. In practice, however, data are difficult to interpret and the many purposes often undermine one another. In this book, anthropologist and STS scholar Klaus Hoeyer offers an in-depth look at the paradoxes surrounding healthcare data.

Focusing on Denmark, a world leader in healthcare data infrastructures, Hoeyer shares the perspectives of different stakeholders, from epidemiologists to hospital managers, from patients to physicians, analyzing the social dynamics set in motion by data intensification and calling special attention to that which cannot be easily coded in a database. He illustrates how data can be both helpful, overwhelming, and sometimes disastrous through concrete examples. The Covid-19 pandemic serves as a special closing case study that shows how these data paradoxes carry weighty political implications. By revealing the diverse and sometimes contradictory practices spawned by intensified data sourcing, *Data Paradoxes* raises vital questions about how we might better use healthcare data.

Klaus Hoeyer is Professor of Medical Science and Technology Studies at the University of Copenhagen and author of the book *Exchanging Human Bodily Material: Rethinking Bodies and Markets.*

sociology

April | 6 x 9, 328 pp. | 8 illus.

US \$50.00X/\$66.00 CAN paper 978-0-262-54541-9 Infrastructures series

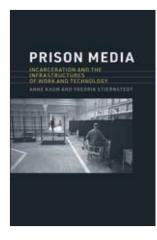
Prison Media

Incarceration and the Infrastructures of Work and Technology

Anne Kaun and Fredrik Stiernstedt

How prisoners serve as media laborers, while the prison serves as a testing ground for new media technologies.

Prisons are not typically known for cutting-edge media technologies. Yet from photography in the nineteenth



century to AI-enhanced tracking cameras today, there is a long history of prisons being used as a testing ground for technologies that are later adopted by the general public. If we recognize the prison as a central site for the development of media technologies, how might that change our understanding of both media systems and carceral systems? *Prison Media* foregrounds the ways in which the prison is a model space for the control and transmission

of information, a place where media is produced, and is a medium in its own right.

Examining the relationship between media and prison architecture, as surveillance and communication technologies are literally built into the facilities, this study also considers the ways in which prisoners themselves often do hard labor as media workers—labor that contributes in direct and indirect ways to the latest technologies developed and sold by multinational corporations like Amazon. There is a fine line between ankle monitors and Fitbits, and *Prison Media* helps us make sense of today's carceral society.

Anne Kaun is Professor in Media and Communication Studies at Södertörn University in Stockholm. Her research on such topics as mediated temporalities and algorithmic culture has appeared in numerous journals, including Convergence, Information, Communication & Society, and New Media & Society. Fredrik Stiernstedt is Associate Professor in Media and Communication Studies at Södertörn University in Stockholm. His research on media and the labor market and the relationship between social class and media has appeared in such journals as Convergence, European Journal of Communication, and Media, Culture & Society.

media studies May | 6 x 9, 208 pp. | 16 illus.

US \$35.00X/\$47.00 CAN paper 978-0-262-54549-5 Distribution Matters series

To Know Is to Compare

Studying Social Media across Nations, Media, and Platforms

Mora Matassi and Pablo J. Boczkowski

How systematic comparative research can unlock the potential of social media scholarship.

Though diverse and fruitful, social media scholarship too often focuses on single platforms in single countries, disconnected from other media that people use. In *To Know Is to Compare*, Mora Matassi and Pablo J. Boczkowski's alternative approach offers a framework based on the epistemological principle that everything we know emerges from comparing two or more entities. Drawing on a wealth of real-life cases, Matassi and Boczkowski examine key aspects of social media from three comparative dimensions (nations, media, and platforms) and two topics (history and language) to propose a blueprint that encourages researchers and lay readers alike to think about social media from new perspectives.

Matassi and Boczkowski illustrate their theoretical points with examples that link multiple media, illuminate an array of platforms, cover different countries and eras, and address various languages and both textual and non-textual signifiers. The result is an original conceptual account that allows for the study of social media in ways that are global, de-westernized, transmedia, and multiplatform. In addition, the authors review the major texts that use a comparative treatment and suggest topics, theories, and methods for engaging in comparative studies in the future.

Mora Matassi is a PhD candidate in Media, Technology, and Society at Northwestern University. **Pablo J. Boczkowski** is Hamad Bin Khalifa Al-Thani Professor in the Department of Communication Studies at Northwestern University.

media studies April | 6 x 9, 232 pp. | 1 illus. **US \$40.00X/\$54.00 CAN paper** 978-0-262-54593-8

Spanish language rights are not available.

Managing Meaning in Ukraine

Information, Communication, and Narration since the Euromaidan Revolution

Göran Bolin and Per Ståhlberg

An in-depth look at Ukraine's attempts to shape how it is perceived by the rest of the world.

During times of crisis, competing narratives are often advanced to define what is happening, and the stakes of information management by nations are high. In this timely book, *Managing Meaning in Ukraine*, Göran Bolin and Per Ståhlberg examine the fraught intersection of state politics, corporate business, and civil activism to understand the dynamics and importance of meaning management in Ukraine. Drawing on fieldwork inside the country, the authors discuss the forms, agents, and platforms within the complex political and communicative situation and how each articulated and acted upon perceptions of the propaganda threat.

Bolin and Ståhlberg focus their analysis on the period between 2013 and 2022, when political tensions, commercial dynamics, and new communication technologies bred novel forms of information management. As they show, entities from governments and governmental administration to commercial actors, entrepreneurs, and activists formed new alliances in order to claim a stake in information policy. Bolin and Ståhlberg also explore how the various agents engaged in information management and strove to manage meaning in communication practice; the communicative tools they took advantage of; and the subsequent consequences for narrative constructions.

Göran Bolin is Professor in Media and Communication Studies at Södertörn University. He is the author of *Media Generations: Experience, Identity and Mediatised Social Change* and *Value and the Media: Cultural Production and Consumption in Digital Markets.* **Per Ståhlberg** is Associate Professor in Media and Communication Studies at Södertörn University. He is the author of *Writing Society through Media: Ethnography of a Hindi Daily.*

history | political science May | 6 x 9, 184 pp. | 12 illus. **US \$35.00X/\$47.00 CAN paper** 978-0-262-54556-3 Information Policy series

Balkan Cyberia

Cold War Computing, Bulgarian Modernization, and the Information Age behind the Iron Curtain

Victor Petrov

How Bulgaria transformed the computer industry behind the Iron Curtain—and the consequences of that transformation for a society that dreamt of a brighter future.

Bulgaria in 1963 was a communist country led by a centralized party trying to navigate a multinational Cold War. The state needed money, and it sought prestige. By cultivating a burgeoning computer industry, Bulgaria achieved both but at great cost to the established order. In *Balkan Cyberia*, Victor Petrov elevates a deeply researched, local story of ambition into an essential history of global innovation, ideological conflict, and exchange.

Granted tremendous freedom by the Politburo and backed by a concerted state secret intelligence effort, a new, privileged class of technical intellectuals and managers rose to prominence in Bulgaria in the 1960s. Plugged in to transnational business and professional networks, they strove to realize the party's radical dreams of utopian automation, and Bulgaria would come to manufacture up to half of the Eastern Bloc's electronics. Yet, as Petrov shows, the export-oriented nature of the industry also led to the disruption of party rule. Technicians, now thinking with and through computers, began to recast the dominant intellectual discourse within a framework of reform, while technocratic managers translated their newfound political clout into economic power that served them well before and after the revolutions of 1989.

Balkan Cyberia reveals the extension of economic and political networks of influence far past the reputed fall of communism, along with the pivotal role small countries played in geopolitical games at the time. Through the prism of the Bulgarian computer industry, the true nature of the socialist international economy, and indeed the links between capitalism and communism, emerge.

Victor Petrov is Assistant Professor of History at the University of Tennessee, Knoxville.

history | techology June | 6 x 9, 424 pp. | 42 illus.

US \$55.00X/\$73.00 CAN paper 978-0-262-54512-9 History of Computing series

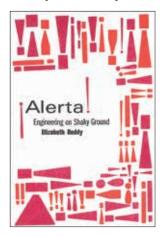
¡Alerta!

Engineering on Shaky Ground

Elizabeth Reddy

A lively account of a controversial technology developed to mitigate earthquake risk and change how we live with threatening environments.

The Sistema de Alerta Sísmica Mexicano is the world's oldest public earthquake early warning system. Given the



unpredictability of earthquakes, the technology was designed to give the people of Mexico City more than a minute to prepare before the next big quake hits. How does this kind of environmental monitoring technology get built in the first place? How does its life-saving promise align with reality? And who shapes modern risk mitigation? In *¡Alerta!*, Elizabeth Reddy surveys this innovation to shed light on what it means to imagine a world where sirens

could sound out an "¡alerta sísmica!" at any moment—and what it would be like to live in such a world.

Proponents of earthquake early warnings have long held that the technology can save lives and limit economic losses. Drawing on ethnographic fieldwork and archival data, Reddy conducts a thorough, qualitative analysis of these claims and considers the requirements and uses of the alert system. She embeds her study in a rich narrative of the engineers who designed the system in conjunction with contingent political and environmental conditions. The result demonstrates how addressing earthquake dangers is no small task: it means trying to change relationships between the environment, society, and technology. Doing so, she critiques universalist and techno-centric approaches to hazard risk mitigation and celebrates the potential of contextually appropriate and broadly supported efforts.

¡Alerta! takes readers on a vivid journey into the world of Mexican earthquake risk mitigation, with critical insights for anthropologists and science and technology studies scholars, as well as specialists in the geosciences, engineering, and emergency management.

Elizabeth Reddy is Assistant Professor of Engineering, Design, & Society at the Colorado School of Mines, with a joint appointment in Geophysics.

technology

April | 6 x 9, 226 pp. | 20 illus.

US \$40.00X/\$54.00 CAN paper 978-0-262-54551-8

Engineering Studies series

Media Ruins

Cambodian Postwar Media Reconstruction and the Geopolitics of Technology

Margaret Jack

How a generation of tech-savvy young Cambodians is restoring historical media artifacts from before the war—and, in the process, helping to repair the Khmer Rouge's cultural destruction.

During the Khmer Rouge regime (1975–1979), an estimated quarter to a third of the Cambodian population perished from execution, starvation, or disease. The regime especially targeted artists and intellectuals and their work, including films, photographs, and audio recordings. In *Media Ruins*, Margaret Jack charts the critical role of media in the historical political landscape of Cambodia as well as in its post-conflict reconstruction and reconciliation. Along the way, Jack tells the remarkable stories of resourceful Cambodians in the decades that followed the end of the regime—those who worked to reconstruct their country's media infrastructure and restore their damaged cultural heritage.

Jack describes the crucial role that media has played in helping the nation grapple with the traumas of its past and imagine brighter futures. She explores how tech-savvy Cambodian media creators have engaged in practices of infrastructural restitution—work that is both emotionally cathartic and politically vital. She also examines the ways these media creators have used digital tools to restore and disseminate lost media artifacts, while embracing an aesthetic of material decay as a visible reminder of loss. As these creators reconcile with the past, they are also finding ways to navigate the country's increasingly authoritarian media landscape. Bringing media and technology studies into conversation with trauma and memory studies, the book provides a unique, and necessary, perspective on post-conflict reconstruction.

Margaret Jack is a postdoctoral scholar on the NSF-funded project "Creating Work/Life" and teaches in the Department of Technology, Culture and Society at NYU Tandon. Before earning her PhD in Information Science at Cornell University, she worked as a financial analyst in Silicon Valley and with international development organizations such as the WHO, UNICEF, and the Clinton Health Access Initiative.

media studies May | 6 x 9, 288 pp. | 40 illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-54538-9

Labor and Technology series

Ownership of Knowledge

Beyond Intellectual Property

edited by Dagmar Schäfer, Annapurna Mamidipudi, and Marius Buning

A framework for knowledge ownership that challenges the mechanisms of inequality in modern society.

Scholars of science, technology, medicine, and law have all tended to emphasize knowledge as the sum of human understanding, and its ownership as possession by law. Breaking with traditional discourse on knowledge property as something that concerns mainly words and intellectual history, or science and law, Dagmar Schäfer, Annapurna Mamidipudi, and Marius Buning propose technology as a central heuristic for studying the many implications of knowledge ownership. Toward this end, they focus on the notions of knowledge and ownership in courtrooms, workshops, policy, and research practices, while also shedding light on scholarship itself as a powerful tool for making explicit the politics inherent in knowledge practices and social order.

Ownership of Knowledge presents case studies showing how diverse knowledge economies are created and how inequalities arise from them. Unlike scholars who have fragmented this discourse across the disciplines of anthropology, sociology, and history, the editors highlight recent developments in the emerging field of the global history of knowledge—as science, as economy, and as culture. The case studies reveal how notions of knowing and owning emerge because they reciprocally produce and determine each other's limits and possibilities; that is, how we know inevitably affects how we can own what we know; and how we own always impacts how and what we are able to know.

Dagmar Schäfer is Director at the Max Planck Institute for the History of Science, Berlin. Annapurna Mamidipudi is a postdoctoral fellow at the Technical University of Berlin and the Max Planck Institute for the History of Science. Marius Buning is Associate Professor at the University of Oslo.

technology | law July | 7 x 9, 440 pp. | 19 color illus., 2 b&w illus.

US \$65.00X/\$86.00 CAN paper 978-0-262-54559-4 Inside Technology series

Selling the American People

Advertising, Optimization, and the Origins of Adtech

Lee McGuigan

How marketers learned to dream of optimization and speak in the idiom of management science well before the widespread use of the Internet.

Algorithms, data extraction, digital marketers monetizing "eyeballs": these all seem like such recent features of our lives. And yet, Lee McGuigan tells us in this eye-opening book, digital advertising was well underway before the widespread use of the Internet. Explaining how marketers have brandished the tools of automation and management science to exploit new profit opportunities, *Selling the American People* traces data-driven surveillance all the way back to the 1950s, when the computerization of the advertising business began to blend science, technology, and calculative cultures in an ideology of optimization. With that ideology came adtech, a major infrastructure of digital capitalism.

To help make sense of today's attention merchants and choice architects, McGuigan explores a few key questions: How did technical experts working at the intersection of data processing and management sciences come to command the center of gravity in the advertising and media industries? How did their ambition to remake marketing through mathematical optimization shape and reflect developments in digital technology? In short, where did adtech come from, and how did data-driven marketing come to mediate the daily encounters of people, products, and public spheres? His answers show how the advertising industry's efforts to bend information technologies toward its dream of efficiency and rational management helped to make "surveillance capitalism" one of the defining experiences of public life.

Lee McGuigan is Assistant Professor in the Hussman School of Journalism and Media at the University of North Carolina, Chapel Hill, and an associate at Cornell Tech's Digital Life Initiative. He is a coeditor of *The Audience Commodity in a Digital Age*.

media studies July | 6 x 9, 336 pp. | 9 illus. **US \$45.00X/\$60.00 CAN paper**

978-0-262-54544-0 Distribution Matters series

Milk and Honey

Technologies of Plenty in the Making of a Holy Land

Tamar Novick

An innovative historical analysis of the intersection of religion and technology in making the modern state, focusing on bodily production and reproduction across the human-animal divide.

In *Milk and Honey*, Tamar Novick writes a revolutionary environmental history of the state that centers on the intersection of technology and religion in modern Israel/ Palestine. Focusing on animals and the management of their production and reproduction across three political regimes the late-Ottoman rule, British rule, and the early Israeli state—Novick draws attention to the ways in which settlers and state experts used agricultural technology to recreate a biblical idea of past plenitude, literally a "land flowing with milk and honey," through the bodies of animals and people.

Novick presents a series of case studies involving the management of water buffalo, bees, goats, sheep, cows, and people in Palestine/Israel. She traces the intimate forms of knowledge and bodily labor—production and reproduction—in which this process took place, and the intertwining of bodily, political, and environmental realms in the transformation of Palestine/Israel. Her wide-ranging approach shows technology never replaced religion as a colonial device. Rather, it merged with settler-colonial aspirations to salvage the land, bolstering the effort to seize control over territory and people.

Fusing technology, religious fervor, bodily labor, and political ecology, *Milk and Honey* provides a novel account of the practices that defined and continue to shape settlercolonialism in the Palestine/Israel, revealing the ongoing entanglement of technoscience and religion in our time.

Tamar Novick is a senior research scholar at the Max Planck Institute for the History of Science.

history | technology

July | 6 x 9, 228 pp. | 10 color illus., 27 b&w illus.

US \$45.00X/\$60.00 CAN paper 978-0-262-03907-9

Inside Technology series

Algorithmic Rights and Protections for Children

edited by Mizuko Ito, Remy Cross, Karthik Dinakar, and Candice Odgers

Essays on the challenges and risks of designing algorithms and platforms for children, with an emphasis on algorithmic justice, learning, and equity.

One in three Internet users worldwide is a child, and what children see and experience online is increasingly shaped by algorithms. Though children's rights and protections are at the center of debates on digital privacy, safety, and Internet governance, the dominant online platforms have not been constructed with the needs and interests of children in mind. The editors of *Algorithmic Rights and Protections for Children*, Mizuko Ito, Remy Cross, Karthik Dinakar, and Candice Odgers, focus on understanding diverse children's evolving relationships with algorithms, digital data, and platforms and offer guidance on how stakeholders can shape these relationships in ways that support children's agency and protect them from harm.

This book includes essays reporting original research on educational programs in AI relational robots and Scratch programming, on children's views on digital privacy and artificial intelligence, and on discourses around educational technologies. Shorter opinion pieces add the perspectives of an instructional designer, a social worker, and parents. The contributing social, behavioral, and computer scientists represent perspectives and contexts that span education, commercial tech platforms, and home settings. They analyze problems and offer solutions that elevate the voices and agency of parents and children. Their essays also build on recent research examining how social media, digital games, and learning technologies reflect and reinforce unequal childhoods.

Mizuko Ito is Professor in Residence and John D. and Catherine T. MacArthur Foundation Chair in Digital Media and Learning at the University of California, Irvine, and Director of the Connected Learning Lab. **Remy Cross** is Research Manager in the Connected Learning Lab. **Karthik Dinakar** is Research Affiliate at the Center of Complex Interventions. **Candice Odgers** is Professor of Psychological Science at the University of California, Irvine.

education June | 6 x 9, 296 pp. | 17 illus. **US \$45.00X/\$60.00 CAN paper**

978-0-262-54548-8

Forecasting Travel in Urban America

The Socio-Technical Life of an Engineering Modeling World

Konstantinos Chatzis

A history of urban travel demand modeling (UTDM) and its enormous influence on American life from the 1920s to the present.

For better and worse, the automobile has been an integral part of the American way of life for decades. Its ascendance would have been far less spectacular, however, had engineers and planners not devised urban travel demand modeling (UTDM). This book tells the story of this irreplaceable engineering tool that has helped cities to accommodate continuous rise in traffic from the 1950s on. Beginning with UTDM's origins as a method to help plan new infrastructure, Konstantinos Chatzis follows its trajectory through new generations of models that helped make optimal use of existing capacity and examines related policy instruments, including the recent use of intelligent transportation systems.

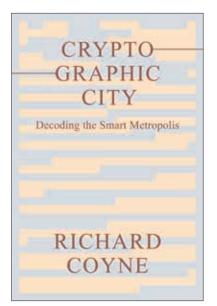
Chatzis investigates these models as evolving entities involving humans and nonhumans that were shaped through a specific production process. In surveying the various generations of UTDM, he delves into various means of production (from tabulating machines to software packages) and travel survey methods (from personal interviews to GPS tracking devices and smartphones) used to obtain critical information. He also looks at the individuals who have collectively built a distinct UTDM social world by displaying specialized knowledge, developing specific skills, and performing various tasks and functions, and by communicating, interacting, and even competing with one another.

Original and refreshingly accessible, *Forecasting Travel in Urban America* offers the first detailed history behind the thinkers and processes that impact the lives of millions of city dwellers every day.

Konstantinos Chatzis is a full-time researcher at the Université Gustave Eiffel.

history | technology July | 6 x 9, 440 pp. | 21 illus.

US \$60.00X/\$79.00 CAN paper 978-0-262-04810-1 Engineering Studies series



Cryptographic City

Decoding the Smart Metropolis

Richard Coyne

Cryptography's essential role in the functioning of the city, viewed against the backdrop of modern digital life.

Cryptography is not new to the city; in fact, it is essential to its functioning. For as long as cities have existed, communications have circulated, often in full sight, but with their messages hidden. In *Cryptographic City*, Richard Coyne explains how cryptography runs deep within the structure of the city. He shows the extent to which cities are built on secrets, their foundations now reinforced by digital encryption and cryptocurrency platforms. He also uses cryptography as a lens through which to inspect smart cities and what they deliver. Coyne sets his investigation into the cryptographic city against the backdrop of the technologies, claims, and challenges of the smart city.

Cryptography provides the means by which communications within and between citizens and devices are kept secure. Coyne shows how all of the smart city innovations-from smart toasters to public transportation networks-are enabled by secure financial transactions, data flows, media streaming, and communications made possible by encryption. Without encryption, he says, communications between people and digital devices would be exposed for anyone to see, hack, and misdirect. He explains the relevant technicalities of cryptography and describes the practical difference it makes to frame cities as cryptographic. Interwoven throughout the book are autobiographical anecdotes, insights from Coyne's teaching practice, and historical reports, making it accessible to the general reader.

Richard Coyne is Professor and Chair of Architectural Computing at the University of Edinburgh. He is the author of *Mood and Mobility*, *The Tuning of Place*, *Cornucopia Limited*, and *Technoromanticism* (all MIT Press).

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