

EDGAR DEGAS SCULPTURE

SUZANNE GLOVER LINDSAY,
DAPHNE S. BARBOUR &
SHELLEY G. STURMAN

With Barbara H. Berrie, Suzanne
Quillen Lomax & Michael Palmer

As an artist, Edgar Degas (1834–1917) defies easy description. He is perhaps best known as a painter, but his most widely known work is a sculpture, *Little Dancer Aged Fourteen*. It is the only sculpture Degas ever showed publicly, though more than one hundred—of dancers, horses, and bathers—were found in his studio after he died. For almost forty years after his death, these works were known only through the bronzes his heirs had cast from the originals. Then, in 1955, the waxes themselves appeared on the art market. Thanks to the discernment and generosity of Paul Mellon, the majority are now preserved at the National Gallery of Art, Washington, most on permanent display.

This groundbreaking volume honors this extraordinary gift by linking art and science. Including essays on Degas' life and work, his sculptural technique and materials, and the story of the sculptures after his death, it features art-historical and technical discussions of every work in the collection as well as indispensable concordances and bibliography. Intended for both art lover and specialist, this richly illustrated text adds immeasurably to our appreciation of this controversial artist.

Suzanne Glover Lindsay is adjunct associate professor in the history of art at the University of Pennsylvania. **Daphne S. Barbour** is a senior object conservator at the National Gallery of Art. **Shelley G. Sturman** is head of object conservation at the National Gallery of Art.

NATIONAL GALLERY OF ART SYSTEMATIC CATALOGUES

FEBRUARY

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408 pages. 221 color illus.

209 halftones. 9 1/2 x 11.

ART

Distributed for the
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PRESS.PRINCETON.EDU

THE PLUM IN THE GOLDEN VASE OR, CHIN P'ING MEI

Volume Four: The Climax

TRANSLATED BY DAVID TOD ROY

This is the fourth and penultimate volume in David Roy's celebrated translation of one of the most famous and important novels in Chinese literature. *The Plum in the Golden Vase*, or *Chin P'ing Mei*, is an anonymous sixteenth-century work that focuses on the domestic life of Hsi-men Ch'ing, a corrupt, upwardly mobile merchant in a provincial town, who maintains a harem of six wives and concubines. This work, known primarily for its erotic realism, is also a landmark in the development of the narrative art form—not only from a specifically Chinese perspective but in a world-historical context.

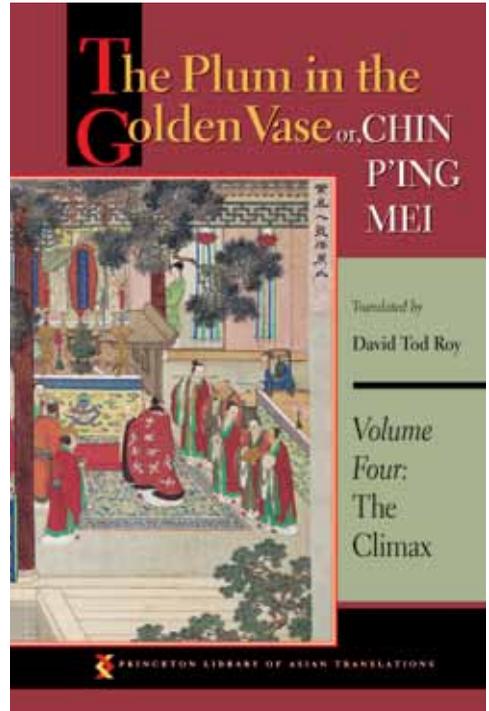
Written during the second half of the sixteenth century and first published in 1618, *The Plum in the Golden Vase* is noted for its surprisingly modern technique. With the possible exception of *The Tale of Genji* (ca. 1010) and *Don Quixote* (1605, 1615), there is no earlier work of prose fiction of equal sophistication in world literature. Although its importance in the history of Chinese narrative has long been recognized, the technical virtuosity of the author, which is more reminiscent of the Dickens of *Bleak House*, the Joyce of *Ulysses*, or the Nabokov of *Lolita* than anything in earlier Chinese fiction, has not yet received adequate recognition. This is partly because all of the existing European translations are either abridged or based on an inferior recension of the text. This complete and annotated translation aims to faithfully represent and elucidate all the rhetorical features of the original in its most authentic form and thereby enable the Western reader to appreciate this Chinese masterpiece at its true worth.

David Tod Roy is professor emeritus of Chinese literature at the University of Chicago, where he has studied the *Chin P'ing Mei* and taught it in his classes since 1967.

PRINCETON LIBRARY OF ASIAN TRANSLATIONS

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<p>Volume Three: The Aphrodisiac</p> <p>JULY</p> <p>Paper \$39.95X 978-0-691-15018-5 Cloth 2006 978-0-691-12534-3 776 pages. 40 line illus. 6 x 9.</p>	<p>Volume One: The Gathering</p> <p>Paper \$39.95X 978-0-691-01614-6</p> <p>Volume Two: The Rivals</p> <p>Paper \$39.95X 978-0-691-12619-7</p>

THE FOURTH INSTALLMENT OF
THE WORLD-RENOWNED CHINESE CLASSIC



Praise for Volume Three:

“Clearly David Roy is the greatest scholar-translator in the field of premodern vernacular Chinese fiction. . . . The puns and various other kinds of word plays that abound in the *Chin P'ing Mei* are so difficult to translate that I can't help 'slapping the table in amazement' each time I see evidence of Roy's masterful rendition of them. . . . I recommend this book, in the strongest possible terms, to anyone interested in the novel form in general, in Chinese literature in particular, or in the translation of Chinese literature.”

—Shuhui Yang, *Chinese Literature*

JULY

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978-0-691-15043-7

1016 pages. 40 line illus. 6 x 9.

LITERATURE ■ ASIAN STUDIES

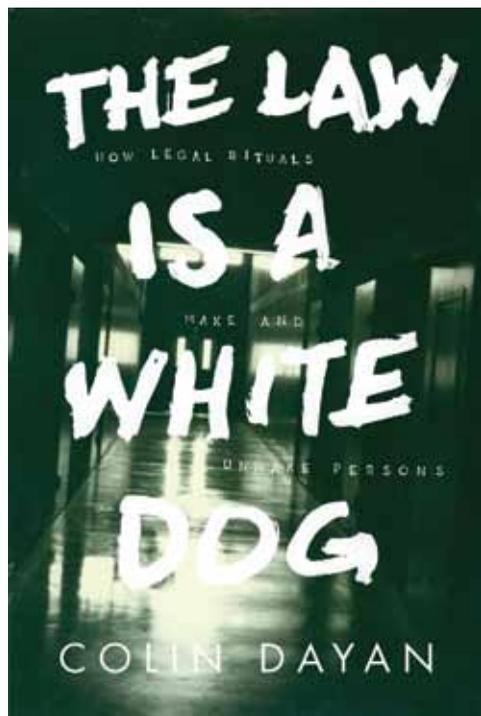
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A FASCINATING CONSIDERATION OF
HOW THE LAW DETERMINES OR DISMANTLES
IDENTITY AND PERSONHOOD

THE LAW IS A WHITE DOG

How Legal Rituals Make and Unmake Persons

COLIN DAYAN



Abused dogs, prisoners tortured in Guantánamo and supermax facilities, or slaves killed by the state—all are deprived of personhood through legal acts. Such deprivations have recurred throughout history, and the law sustains these terrors and banishments even as it upholds the civil order. Examining such troubling cases, *The Law Is a White Dog* tackles key societal questions: How does the law construct our identities? How do its rules and sanctions make or unmake persons? And how do the supposedly rational claims of the law define marginal entities, both natural and supernatural, including ghosts, dogs, slaves, terrorist suspects, and felons? Reading the language, allusions, and symbols of legal discourse, and bridging distinctions between the human and nonhuman, Colin Dayan looks at how the law disfigures individuals and animals, and how slavery, punishment, and torture create unforeseen effects in our daily lives.

Moving seamlessly across genres and disciplines, Dayan considers legal practices and spiritual beliefs from medieval England, the North American colonies, and the Caribbean that have survived in our legal discourse, and she explores the civil deaths of felons and slaves through lawful repression. Tracing the legacy of slavery in the United States in the structures of the contemporary American prison system and in the administrative detention of ghostly supermax facilities, she also demonstrates how contemporary jurisprudence regarding cruel and unusual punishment prepared the way for abuses in Abu Ghraib and Guantánamo.

Using conventional historical and legal sources to answer unconventional questions, *The Law Is a White Dog* illuminates stark truths about civil society's ability to marginalize, exclude, and dehumanize.

Colin Dayan is the Robert Penn Warren Professor in the Humanities at Vanderbilt University. Her books include *Haiti, History, and the Gods* and *The Story of Cruel and Unusual*. She is a regular contributor to the *Boston Review* and the *London Review of Books*.

“In language that is searing and lyrical, evocative and precise, this extraordinary book *thinks with* the zombies, specters, felons, slaves, dogs, cadavers, and other entities that are the remnants of loss and dispossession in the law. Dogs and people are abundantly present in this exceptional and important book, even as the legal fictions they are made to inhabit are exposed with acid lucidity. These are hard histories made readable by Dayan’s precious acts of writing.”

—Donna Haraway, University of California, Santa Cruz

MARCH

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368 pages. 6 x 9.

LITERATURE ■ LAW

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BECOMING YELLOW

A Short History of Racial Thinking

MICHAEL KEEVAK

In their earliest encounters with Asia, Europeans almost uniformly characterized the people of China and Japan as white. This was a means of describing their wealth and sophistication, their willingness to trade with the West, and their presumed capacity to become Christianized. But by the end of the seventeenth century the category of whiteness was reserved for Europeans only. When and how did Asians become “yellow” in the Western imagination? Looking at the history of racial thinking, *Becoming Yellow* explores the notion of yellowness and shows that this label originated not in early travel texts or objective descriptions, but in the eighteenth- and nineteenth-century scientific discourses on race.

From the walls of an ancient Egyptian tomb, which depicted people of varying skin tones including yellow, to the phrase “yellow peril” at the beginning of the twentieth century in Europe and America, Michael Keevak follows the development of perceptions about race and human difference. He indicates that the conceptual relationship between East Asians and yellow skin did not begin in Chinese culture or Western readings of East Asian cultural symbols, but in anthropological and medical records that described variations in skin color. Eighteenth-century taxonomers such as Carl Linnaeus, as well as Victorian scientists and early anthropologists, assigned colors to all racial groups, and once East Asians were lumped with members of the Mongolian race, they began to be considered yellow.

Demonstrating how a racial distinction took root in Europe and traveled internationally, *Becoming Yellow* weaves together multiple narratives to tell the complex history of a problematic term.

Michael Keevak is a professor in the Department of Foreign Languages at National Taiwan University. His books include *Sexual Shakespeare*, *The Pretended Asian*, and *The Story of a Stele*.

THE COMPLEX HISTORY OF EAST ASIANS
AND “YELLOW” SKIN COLOR

“This book will make an indelible and enlightening mark in the fields of postcolonial, race, and cultural studies, and will attract an uncommonly diverse audience. It has a rightful place as part of the literary and historical scholarship that comprises the greater contemporary postcolonial project.”

—Don J. Wyatt, Middlebury College

“Well-organized and engaging, this very interesting and singular work is a solid contribution to various fields and innovative in both its focus and approach. I cannot think of any other book that addresses the same subject that this one does.”

—Larissa Heinrich, University of California, San Diego

JUNE

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978-0-691-14031-5

248 pages. 7 color illus. 16 halftones. 6 x 9.

HISTORY ■ ASIAN STUDIES

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DEATH AND REDEMPTION

The Gulag and the Shaping of Soviet Society

STEVEN A. BARNES

Death and Redemption offers a fundamental reinterpretation of the role of the Gulag—the Soviet Union’s vast system of forced-labor camps, internal exile, and prisons—in Soviet society. Soviet authorities undoubtedly had the will to exterminate all the prisoners who passed through the Gulag, but unlike the Nazis they did not conceive of their concentration camps as instruments of genocide. In this provocative book, Steven Barnes argues that the Gulag must be understood primarily as a penal institution where prisoners were given one final chance to reintegrate into Soviet society. Millions whom authorities deemed “reeducated” through brutal forced labor were allowed to leave. Millions more who “failed” never got out alive.

Drawing on newly opened archives in Russia and Kazakhstan as well as memoirs by actual prisoners, Barnes shows how the Gulag was integral to the Soviet goal of building a utopian socialist society. He takes readers into the Gulag itself, focusing on one outpost of the Gulag system in the Karaganda region of Kazakhstan, a location that featured the full panoply of Soviet detention institutions. Barnes traces the Gulag experience from its beginnings after the 1917 Russian Revolution to its decline following the 1953 death of Stalin.

Death and Redemption reveals how the Gulag defined the border between those who would reenter Soviet society and those who would be excluded through death.

Steven A. Barnes is associate professor of history and director of the Center for Russian and Eurasian Studies at George Mason University.

MAY

Paper \$35.00S

978-0-691-15112-0

Cloth \$75.00S

978-0-691-15108-3

368 pages. 2 halftones. 1 table. 6 x 9.

HISTORY ■ SOVIET STUDIES

CHANGES OF STATE

Nature and the Limits of the City
in Early Modern Natural Law

ANNABEL S. BRETT

This is a book about the theory of the city or commonwealth, what would come to be called the state, in early modern natural law discourse. Annabel Brett takes a fresh approach by looking at this political entity from the perspective of its boundaries and those who crossed them. She begins with a classic debate from the Spanish sixteenth century over the political treatment of mendicants, showing how cosmopolitan ideals of porous boundaries could simultaneously justify the humane treatment of itinerant beggars and the activities of European colonists in the Indies. She goes on to examine the boundaries of the state in multiple senses, including the fundamental barrier between human beings and animals and the limits of the state in the face of the natural lives of its subjects, as well as territorial frontiers. Drawing on a wide range of authors, Brett reveals how early modern political space was constructed from a complex dynamic of inclusion and exclusion. Throughout, she shows that early modern debates about political boundaries displayed unheralded creativity and virtuosity but were nevertheless vulnerable to innumerable paradoxes, contradictions, and loose ends.

Changes of State is a major work of intellectual history that resonates with modern debates about globalization and the transformation of the nation-state.

Annabel S. Brett is Senior Lecturer in History at the University of Cambridge and Fellow of Gonville and Caius College, Cambridge. She is the author of *Liberty, Right, and Nature* and a new translation of Marsilius of Padua’s *Defender of the Peace*.

APRIL

Cloth \$35.00S

978-0-691-14193-0

264 pages. 5 halftones. 1 map. 6 x 9.

HISTORY ■ POLITICAL THEORY

LINE IN THE SAND

A History of the Western U.S.-Mexico Border

THE FIRST TRANSNATIONAL HISTORY
OF THE U.S.-MEXICO BORDER

RACHEL ST. JOHN

Line in the Sand details the dramatic transformation of the western U.S.-Mexico border from its creation at the end of the Mexican-American War in 1848 to the emergence of the modern boundary line in the first decades of the twentieth century. In this sweeping narrative, Rachel St. John explores how this boundary changed from a mere line on a map to a clearly marked and heavily regulated divide between the United States and Mexico. Focusing on the desert border to the west of the Rio Grande, this book explains the origins of the modern border and places the line at the center of a transnational history of expanding capitalism and state power in the late nineteenth and early twentieth centuries.

Moving across local, regional, and national scales, St. John shows how government officials, Native American raiders, ranchers, railroad builders, miners, investors, immigrants, and smugglers contributed to the rise of state power on the border and developed strategies to navigate the increasingly regulated landscape. Over the border's history, the U.S. and Mexican states gradually developed an expanding array of official laws, ad hoc arrangements, government agents, and physical barriers that did not close the line, but made it a flexible barrier that restricted the movement of some people, goods, and animals without impeding others. By the 1930s, their efforts had created the foundations of the modern border control apparatus.

Drawing on extensive research in U.S. and Mexican archives, *Line in the Sand* weaves together a transnational history of how an undistinguished strip of land became the significant and symbolic space of state power and national definition that we know today.

Rachel St. John is associate professor of history at Harvard University.

AMERICA IN THE WORLD
Sven Beckert and Jeremi Suri, Series Editors

"A pleasure to read, *Line in the Sand* is the first truly transnational history of the U.S.-Mexico land border. Grounded in extensive and meticulous research in both countries, this comprehensive book will be an important contribution to border and borderlands studies and U.S. history more broadly. It does a wonderful job of showing border dynamics in different realms and in all their complexity."

—Mae Ngai, Columbia University

"This elegant book draws on the archives and historiographies of the United States and Mexico to place the borderlands in a broad, transnational context. St. John focuses great attention on the social, political, and institutional foundations of the border itself, and the light she shines on regional and national perspectives makes this outstanding book essential reading for historians of all stripes. It is one of the most satisfying borderlands histories available."

—Sam Truett, University of New Mexico

JUNE

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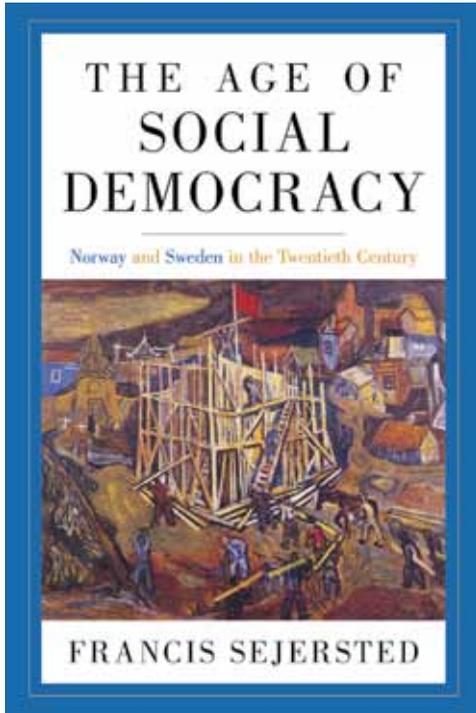
978-0-691-14154-1

256 pages. 20 halftones. 3 maps. 6 x 9.

HISTORY

PRESS.PRINCETON.EDU

A HISTORY OF HOW MODERN NORWAY AND SWEDEN BECAME THE ENVY OF THE WORLD



“This book will be a treasure trove for scholars—and politicians!—who want to understand the workings of the ‘Scandinavian model’... By virtue of its acute psychological insights and low-key but poignant irony, *The Age of Social Democracy* is also a marvelously wise book.”

—Jon Elster, Collège de France and Columbia University

THE AGE OF SOCIAL DEMOCRACY

Norway and Sweden in the Twentieth Century

FRANCIS SEJERSTED

Translated by Richard Daly
with editing by Madeleine B. Adams

This is the history of how two countries on the northern edge of Europe built societies in the twentieth century that became objects of inspiration and envy around the world. Francis Sejersted, one of Scandinavia’s leading historians, tells how Norway and Sweden achieved a rare feat by realizing grand visions of societies that combine stability, prosperity, and social welfare. It is a history that holds valuable lessons today, at a time of renewed interest in the Scandinavian model.

The book tells the story of social democracy from the separation of Norway and Sweden in 1905 through the end of the century, tracing its development from revolutionary beginnings through postwar triumph, as it became a hegemonic social order that left its stamp on every sector of society, the economy, welfare, culture, education, and family. The book also tells how in the 1980s, partly in reaction to the strong state, a freedom and rights revolution led to a partial erosion of social democracy. Yet despite the fracturing of consensus and the many economic and social challenges facing Norway and Sweden today, the achievement of their welfare states remains largely intact.

Francis Sejersted, one of Scandinavia’s leading historians, is former chairman of the Norwegian Nobel Committee (the Peace Prize Committee) and current chairman of the Norwegian Freedom of Expression Foundation. The author of many books, he is a senior researcher at the Institute for Social Research in Oslo and a former professor at the University of Oslo.

APRIL

Cloth \$39.95S

978-0-691-14774-1

554 pages. 19 halftones. 6 x 9.

HISTORY ■ POLITICAL SCIENCE

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THE PAPERS OF THOMAS JEFFERSON

Volume 37: 4 March to 30 June 1802

THOMAS JEFFERSON

Edited by Barbara B. Oberg

This volume opens on 4 March 1802, the first anniversary of Thomas Jefferson's inauguration as the nation's third president, and closes on 30 June. In March, a delegation of Seneca Indians comes to Washington to discuss their tribe's concerns, and Jefferson names a commissioner to handle a land sale by Oneida Indians to the state of New York. In April, the Senate ratifies a treaty with the Choctaw nation for a wagon road across their lands. Jefferson worries about an increasingly dictatorial France taking back control of New Orleans, prompting him to the intemperate remark that he would "marry" America's fortunes to the British fleet. Charles Willson Peale sends him sketches of the skull of a prehistoric bison found in Kentucky. During the closing, and very frustrating, weeks of Congress, he distracts himself with a cipher devised by Robert Patterson. He prepares lists of books to be purchased for the recently established Library of Congress and also obtains many titles for his own collection. Even while he is in Washington occupied with matters of state, Jefferson has been keeping close watch on the renovations at Monticello. In May, he has Antonio Giannini plant several varieties of grapes in the southwest vineyard, and he orders groceries, molasses, dry Lisbon wine, and cider to be shipped to Monticello in time for his arrival. He looks forward "with impatience" to the moment he can embrace his family once more.

Barbara B. Oberg, senior research scholar and lecturer with the rank of professor at Princeton University, is general editor of *The Papers of Thomas Jefferson*.

THE PAPERS OF THOMAS JEFFERSON
Barbara B. Oberg, General Editor

FEBRUARY

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844 pages. 6 duotones.

2 halftones. 14 line illus. 6 x 9.

AMERICAN HISTORY

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THE PAPERS OF THOMAS JEFFERSON, RETIREMENT SERIES

Volume 7: 28 November 1813 to 30 September 1814

THOMAS JEFFERSON

Edited by J. Jefferson Looney

Volume Seven of the project documenting Thomas Jefferson's last years presents 526 documents from 28 November 1813 to 30 September 1814. During this period Jefferson reviews the sources on the 1765 Stamp Act crisis to aid William Wirt, a Patrick Henry scholar; records his impressions of George Washington; and updates a reading list for law students that he had drawn up forty years earlier. In the spring of 1814 Jefferson becomes a trustee of the Albemarle Academy, the earliest direct ancestor of the University of Virginia, and he is soon involved in planning for its establishment and future. Jefferson also exchanges ideas on collegiate education with Thomas Cooper and José Corrêa da Serra. Jefferson's wide-ranging correspondence includes a temperate response to a letter from Miles King urging the retired president to reflect on his personal religion, as well as a noncommittal reply to a proposal by Edward Coles that Jefferson employ his prestige to help abolish slavery. Learning of the British destruction in August 1814 of the public buildings in Washington, Jefferson offers his massive book collection as a replacement for the Library of Congress. The nation ultimately purchases approximately 6,700 volumes.

J. Jefferson Looney is editor of *The Papers of Thomas Jefferson: Retirement Series*, which is sponsored by the Thomas Jefferson Foundation, Charlottesville, Virginia.

THE PAPERS OF THOMAS JEFFERSON: RETIREMENT SERIES
J. Jefferson Looney, Editor

FEBRUARY

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832 pages. 10 duotones.

11 line illus. 2 maps. 6 x 9.

AMERICAN HISTORY

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ON THE CURRENCY OF EGALITARIAN JUSTICE, AND OTHER ESSAYS IN POLITICAL PHILOSOPHY

G. A. COHEN

Edited by Michael Otsuka

G. A. Cohen was one of the most gifted, influential, and progressive voices in contemporary political philosophy. At the time of his death in 2009, he had plans to bring together a number of his most significant papers. This is the first of three volumes to realize those plans. Drawing on three decades of work, it contains previously uncollected articles that have shaped many of the central debates in political philosophy, as well as papers published here for the first time. In these pieces, Cohen asks what egalitarians have most reason to equalize, he considers the relationship between freedom and property, and he reflects upon ideal theory and political practice.

Included here are classic essays such as “Equality of What?” and “Capitalism, Freedom, and the Proletariat,” along with more recent contributions such as “Fairness and Legitimacy in Justice,” “Freedom and Money,” and the previously unpublished “How to Do Political Philosophy.” On ample display throughout are the clarity, rigor, conviction, and wit for which Cohen was renowned. Together, these essays demonstrate how his work provides a powerful account of liberty and equality to the left of Ronald Dworkin, John Rawls, Amartya Sen, and Isaiah Berlin.

G. A. Cohen (1941–2009) was the Chichele Professor of Social and Political Theory at All Souls College, University of Oxford, from 1985 to 2008. At the time of his death, he held the Quain Chair in Jurisprudence at University College London. His books include *Karl Marx’s Theory of History* and *Why Not Socialism?* (both Princeton). **Michael Otsuka** is professor of philosophy at University College London.

FEBRUARY

Paper \$24.95S

978-0-691-14871-7

Cloth \$85.00S

978-0-691-14870-0

288 pages. 4 tables. 6 x 9.

PHILOSOPHY

LOVE’S VISION

TROY JOLLIMORE

Love often seems uncontrollable and irrational, but we just as frequently appear to have reasons for loving the people we do. In *Love’s Vision*, Troy Jollimore offers a new way of understanding love that accommodates both of these facts, arguing that love is guided by reason even as it resists and sometimes eludes rationality. At the same time, he reconsiders love’s moral status, acknowledging its moral dangers while arguing that it is, at heart, a moral phenomenon—an emotion that demands empathy and calls us away from excessive self-concern. Love is revealed as neither wholly moral nor deeply immoral, neither purely rational nor profoundly irrational. Rather, as Diotima says in Plato’s *Symposium*, love is “something in between.”

Jollimore makes his case by proposing a “vision” view of love, according to which loving is a way of seeing that involves bestowing charitable attention on a loved one. This view recognizes the truth in the cliché “love is blind,” but holds that love’s blindness does not undermine the idea that love is guided by reason. Reasons play an important role in love even if they rest on facts that are not themselves rationally justifiable.

Filled with illuminating examples from literature, *Love’s Vision* is an original examination of a subject of vital philosophical and human concern.

Troy Jollimore is associate professor of philosophy at California State University, Chico. He is the author of *Friendship and Agent-Relative Morality*. He is also the author of a book of poems, *Tom Thomson in Purgatory*, which won the National Book Critics Circle Award.

JULY

Cloth \$35.00S

978-0-691-14872-4

232 pages. 6 x 9.

PHILOSOPHY

THE PRAGMATISM READER

From Peirce through the Present

EDITED BY

ROBERT TALISSE & SCOTT AIKIN

The Pragmatism Reader is the essential anthology of this important philosophical movement. Each selection featured here is a key writing by a leading pragmatist thinker, and represents a distinctively pragmatist approach to a core philosophical problem. The collection includes work by pragmatism's founders, Charles Peirce, William James, and John Dewey, as well as seminal writings by mid-twentieth-century pragmatists such as Sidney Hook, C. I. Lewis, Nelson Goodman, Rudolf Carnap, Wilfrid Sellars, and W.V.O. Quine. This reader also includes the most important work in contemporary pragmatism by philosophers like Susan Haack, Cornel West, Hilary Putnam, Richard Rorty, Cheryl Misak, and Robert Brandom. Each selection is a stand-alone piece—not an excerpt or book chapter—and each is presented fully unabridged.

The Pragmatism Reader challenges the notion that pragmatism fell into a midcentury decline and was dormant until the advent of “neopragmatism” in the 1980s. This comprehensive anthology reveals a rich and highly influential tradition running unbroken through twentieth-century philosophy and continuing today. It shows how American pragmatist philosophers have contributed to leading philosophical debates about truth, meaning, knowledge, experience, belief, existence, justification, and freedom.

- ◆ Covers pragmatist philosophy from its origins to today
- ◆ Features key writings by the leading pragmatist thinkers
- ◆ Demonstrates the continuity and enduring influence of pragmatism
- ◆ Challenges prevailing notions about pragmatism
- ◆ Includes only stand-alone pieces, completely unabridged
- ◆ Reflects the full range of pragmatist themes, arguments, concerns, and commitments

Robert Talisse is professor of philosophy at Vanderbilt University. His books include *A Pragmatist Philosophy of Democracy*.

Scott Aikin is senior lecturer in philosophy at Vanderbilt. He is the coauthor, with Robert Talisse, of *Pragmatism: A Guide for the Perplexed*.

THE ESSENTIAL ANTHOLOGY OF AN INFLUENTIAL
AND ENDURING PHILOSOPHICAL TRADITION

“With an excellent selection of papers by all the classical pragmatists and a very well judged collection of pieces by more recent philosophers sympathetic to pragmatism, this superb volume provides material for a successful course on pragmatism and also offers readers a fascinating overview of its varieties.”

—Christopher Hookway, University of Sheffield

“[A] welcome arrangement of skillfully selected contributions.”

—Ernest Sosa, Rutgers University

MAY

Paper \$35.00S

978-0-691-13706-3

Cloth \$90.00S

978-0-691-13705-6

496 pages. 5 line illus. 6 1/2 x 9 1/2.

PHILOSOPHY

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TRUTH

ALEXIS G. BURGESS &
JOHN P. BURGESS

This is a concise, advanced introduction to current philosophical debates about truth. A blend of philosophical and technical material, the book is organized around, but not limited to, the tendency known as deflationism, according to which there is not much to say about the nature of truth. In clear language, Burgess and Burgess cover a wide range of issues, including the nature of truth, the status of truth-value gaps, the relationship between truth and meaning, relativism and pluralism about truth, and semantic paradoxes from Alfred Tarski to Saul Kripke and beyond. Following a brief introduction that reviews the most influential traditional and contemporary theories of truth, short chapters cover Tarski, deflationism, indeterminacy, realism, antirealism, Kripke, and the possible insolubility of semantic paradoxes. The book provides a rich picture of contemporary philosophical theorizing about truth, one that will be essential reading for philosophy students as well as philosophers specializing in other areas.

Alexis G. Burgess is assistant professor of philosophy at Stanford University. **John P. Burgess** is the John N. Woodhull Professor of Philosophy at Princeton University. His books include *Philosophical Logic* and *Fixing Frege* (both Princeton).

PRINCETON FOUNDATIONS OF CONTEMPORARY PHILOSOPHY
Scott Soames, Series Editor

APRIL

Cloth \$22.95S

978-0-691-14401-6

176 pages. 1 table. 5 1/2 x 8 1/2.

PHILOSOPHY

PHILOSOPHY OF LAW

ANDREI MARMOR

In *Philosophy of Law*, Andrei Marmor provides a comprehensive analysis of contemporary debates about the fundamental nature of law—an issue that has been at the heart of legal philosophy for centuries. What the law is seems to be a matter of fact, but this fact has normative significance: it tells people what they ought to do. Is the normative content of a law entirely determined by the facts that make it a law? Are there some normative moral constraints on what the law can be? And can we fully characterize and define the law without assuming a moral conception about what the law ought to be? Ultimately, is the philosophy of law about describing what law is, or prescribing what it should be?

Marmor argues that the myriad questions raised by the factual and normative features of law actually depend on the possibility of reduction—whether the legal domain can be explained in terms of something else, more foundational in nature. In addition to exploring the major issues in contemporary legal thought, *Philosophy of Law* provides a critical analysis of the people and ideas that have dominated the field in past centuries. It will be essential reading for anyone curious about the nature of law.

Andrei Marmor is professor of philosophy, Maurice Jones Jr. Professor of Law, and director of the Center for Law and Philosophy at the University of Southern California. His books include *Social Conventions: From Language to Law* (Princeton) and *Law in the Age of Pluralism*.

PRINCETON FOUNDATIONS OF CONTEMPORARY PHILOSOPHY
Scott Soames, Series Editor

MARCH

Cloth \$22.95S

978-0-691-14167-1

184 pages. 5 1/2 x 8 1/2.

PHILOSOPHY ■ LAW

THE PURSUIT OF LAZINESS

An Idle Interpretation of the Enlightenment

PIERRE SAINT-AMAND

Translated by Jennifer Curtiss Gage

We think of the Enlightenment as an era dominated by ideas of progress, production, and industry—not an era that favored the lax and indolent individual. But was the Enlightenment only about the unceasing improvement of self and society? *The Pursuit of Laziness* examines moral, political, and economic treatises of the period, and reveals that crucial eighteenth-century texts did find value in idleness and nonproductivity. Fleshing out Enlightenment thinking in the works of Denis Diderot, Joseph Joubert, Pierre de Marivaux, Jean-Jacques Rousseau, and Jean-Siméon Chardin, this book explores idleness in all its guises, and illustrates that laziness existed, not as a vice of the wretched, but as an exemplar of modernity and a resistance to beliefs about virtue and utility.

Whether in the dawdlings of Marivaux's journalist who delayed and procrastinated or in the subjects of Chardin's paintings who delighted in suspended, playful time, Pierre Saint-Amand shows how eighteenth-century works provided a strong argument for laziness. Rousseau abandoned his previous defense of labor to pursue reverie and botanical walks, Diderot emphasized a parasitic strategy of resisting work in order to liberate time, and Joubert's little-known posthumous *Notebooks* radically opposed the central philosophy of the Enlightenment in a quest to infinitely postpone work.

Unsettling the stubborn view of the eighteenth century as an age of frenetic industriousness and labor, *The Pursuit of Laziness* plumbs the texts and images of the time and uncovers deliberate yearnings for slowness and recreation.

Pierre Saint-Amand is the Francis Wayland Professor of French Studies and Comparative Literature at Brown University. His books include *The Laws of Hostility: Politics, Violence, and the Enlightenment*.

JUNE

Cloth \$29.955

978-0-691-14927-1

176 pages. 6 halftones. 5 1/2 x 8 1/2.

PHILOSOPHY ■

INTELLECTUAL HISTORY

DIVINE MACHINES

Leibniz and the Sciences of Life

JUSTIN E. H. SMITH

Though it did not yet exist as a discrete field of scientific inquiry, biology was at the heart of many of the most important debates in seventeenth-century philosophy. Nowhere is this more apparent than in the work of G. W. Leibniz. In *Divine Machines*, Justin Smith offers the first in-depth examination of Leibniz's deep and complex engagement with the empirical life sciences of his day, in areas as diverse as medicine, physiology, taxonomy, generation theory, and paleontology. He shows how these wide-ranging pursuits were not only central to Leibniz's philosophical interests, but often provided the insights that led to some of his best-known philosophical doctrines.

Presenting the clearest picture yet of the scope of Leibniz's theoretical interest in the life sciences, *Divine Machines* takes seriously the philosopher's own repeated claims that the world must be understood in fundamentally biological terms. Here Smith reveals a thinker who was immersed in the sciences of life, and looked to the living world for answers to vexing metaphysical problems. He casts Leibniz's philosophy in an entirely new light, demonstrating how it radically departed from the prevailing models of mechanical philosophy and had an enduring influence on the history and development of the life sciences. Along the way, Smith provides a fascinating glimpse into early modern debates about the nature and origins of organic life, and into how philosophers such as Leibniz engaged with the scientific dilemmas of their era.

Justin E. H. Smith is associate professor of philosophy at Concordia University in Montreal. He is the editor of *The Problem of Animal Generation in Early Modern Philosophy*.

MAY

Cloth \$45.005

978-0-691-14178-7

392 pages. 1 halftone. 5 tables. 6 x 9.

PHILOSOPHY ■ HISTORY OF SCIENCE

THE ETHICS OF VOTING

JASON BRENNAN

Nothing is more integral to democracy than voting. Most people believe that every citizen has the civic duty or moral obligation to vote, that any sincere vote is morally acceptable, and that buying, selling, or trading votes is inherently wrong. In this provocative book, Jason Brennan challenges our fundamental assumptions about voting, revealing why it is not a duty for most citizens—in fact, he argues, many people owe it to the rest of us *not* to vote.

Bad choices at the polls can result in unjust laws, needless wars, and calamitous economic policies. Brennan shows why voters have duties to make informed decisions in the voting booth, to base their decisions on sound evidence for what will create the best possible policies, and to promote the common good rather than their own self-interest. They must vote well—or not vote at all. Brennan explains why voting is not necessarily the best way for citizens to exercise their civic duty, and why some citizens need to stay away from the polls to protect the democratic process from their uninformed, irrational, or immoral votes.

In a democracy, every citizen has the right to vote. This book reveals why sometimes it's best if they don't.

Jason Brennan is assistant professor of philosophy at Brown University. He is the coauthor of *A Brief History of Liberty*.

MAY

Cloth \$29.95S

978-0-691-14481-8

216 pages. 3 line illus. 6 x 9.

POLITICAL THEORY ■ PHILOSOPHY

DEMOCRATIC LEGITIMACY

Impartiality, Reflexivity, Proximity

PIERRE ROSANVALLON

Translated by Arthur Goldhammer

It's a commonplace that citizens in Western democracies are disaffected with their political leaders and traditional democratic institutions. But in *Democratic Legitimacy*, Pierre Rosanvallon, one of today's leading political thinkers, argues that this crisis of confidence is partly a crisis of understanding. He makes the case that the sources of democratic legitimacy have shifted and multiplied over the past thirty years and that we need to comprehend and make better use of these new sources of legitimacy in order to strengthen our political self-belief and commitment to democracy.

Drawing on examples from France and the United States, Rosanvallon notes that there has been a major expansion of independent commissions, NGOs, regulatory authorities, and watchdogs in recent decades. At the same time, constitutional courts have become more willing and able to challenge legislatures. These institutional developments, which serve the democratic values of impartiality and reflexivity, have been accompanied by a new attentiveness to what Rosanvallon calls the value of proximity, as governing structures have sought to find new spaces for minorities, the particular, and the local. To improve our democracies, we need to use these new sources of legitimacy more effectively and we need to incorporate them into our accounts of democratic government.

An original contribution to the vigorous international debate about democratic authority and legitimacy, this promises to be one of Rosanvallon's most important books.

Pierre Rosanvallon is professor at the Collège de France and the École des Hautes Études en Sciences Sociales in Paris. His many books include *Counter-Democracy*, *The Demands of Liberty*, *Democracy Past and Future*, and *The New Social Question* (Princeton).

JULY

Cloth \$35.00S

978-0-691-14948-6

240 pages. 6 x 9.

POLITICAL THEORY

THE CLOSED COMMERCIAL STATE

Perpetual Peace and Commercial Society
from Rousseau to Fichte

ISAAC NAKHIMOVSKY

This book presents an important new account of Johann Gottlieb Fichte's *Closed Commercial State*, a major early nineteenth-century development of Rousseau and Kant's political thought. Isaac Nakhimovsky shows how Fichte reformulated Rousseau's constitutional politics and radicalized the economic implications of Kant's social contract theory with his defense of the right to work. Nakhimovsky argues that Fichte's sequel to Rousseau and Kant's writings on perpetual peace represents a pivotal moment in the intellectual history of the pacification of the West. Fichte claimed that Europe could not transform itself into a peaceful federation of constitutional republics unless economic life could be disentangled from the competitive dynamics of relations between states, and he asserted that this disentanglement required transitioning to a planned and largely self-sufficient national economy, made possible by a radical monetary policy. Fichte's ideas have resurfaced with nearly every crisis of globalization from the Napoleonic wars to the present, and his book remains a uniquely systematic and complete discussion of what John Maynard Keynes later termed "national self-sufficiency." Fichte's provocative contribution to the social contract tradition reminds us, Nakhimovsky concludes, that the combination of a liberal theory of the state with an open economy and international system is a much more contingent and precarious outcome than many recent theorists have tended to assume.

Isaac Nakhimovsky is a junior research fellow at Emmanuel College, University of Cambridge.

AUGUST

Cloth \$35.00S

978-0-691-14894-6
216 pages. 6 x 9.

POLITICAL THEORY ■ PHILOSOPHY

DANGEROUS SEX, INVISIBLE LABOR

Sex Work and the Law in India

PRABHA KOTISWARAN

Popular representations of third-world sex workers as sex slaves and vectors of HIV have spawned abolitionist legal reforms that are harmful and ineffective, and public health initiatives that provide only marginal protection of sex workers' rights. In this book, Prabha Kotiswaran asks how we might understand sex workers' demands that they be treated as workers. She contemplates questions of redistribution through law within the sex industry by examining the political economies and legal ethnographies of two archetypical urban sex markets in India.

Kotiswaran conducted in-depth fieldwork among sex workers in Sonagachi, Kolkata's largest red-light area, and Tirupati, a temple town in southern India. Providing new insights into the lives of these women—many of whom are demanding the respect and legal protection that other workers get—Kotiswaran builds a persuasive theoretical case for recognizing these women's sexual labor. Moving beyond standard feminist discourse on prostitution, she draws on a critical genealogy of materialist feminism for its sophisticated vocabulary of female reproductive and sexual labor, and uses a legal realist approach to show why criminalization cannot succeed amid the informal social networks and economic structures of sex markets. Based on this, Kotiswaran assesses the law's redistributive potential by analyzing the possible economic consequences of partial decriminalization, complete decriminalization, and legalization. She concludes with a theory of sex work from a postcolonial materialist feminist perspective.

Prabha Kotiswaran is lecturer in law at the School of Oriental and African Studies at the University of London.

AUGUST

Paper \$29.95S

978-0-691-14251-7

Cloth \$70.00S

978-0-691-14250-0

312 pages. 2 line illus. 1 table.
2 maps. 6 x 9.

LAW ■ WOMEN'S STUDIES

Not for sale in India

WHY AMERICANS DON'T JOIN THE PARTY

Race, Immigration, and the Failure
(of Political Parties) to Engage the Electorate

ZOLTAN L. HAJNAL & TAEKU LEE

Two trends are dramatically altering the American political landscape: growing immigration and the rising prominence of independent and nonpartisan voters. Examining partisan attachments across the four primary racial groups in the United States, this book offers the first sustained and systematic account of how race and immigration today influence the relationship that Americans have—or fail to have—with the Democratic and Republican parties. Zoltan Hajnal and Taeku Lee contend that partisanship is shaped by three factors—identity, ideology, and information—and they show that African Americans, Asian Americans, Latinos, and whites respond to these factors in distinct ways.

The book explores why so many Americans—in particular, Latinos and Asians—fail to develop ties to either major party, why African Americans feel locked into a particular party, and why some white Americans are shut out by ideologically polarized party competition. Through extensive analysis, the authors demonstrate that when the Democratic and Republican parties fail to raise political awareness, to engage deeply held political convictions, or to affirm primary group attachments, nonpartisanship becomes a rationally adaptive response. By developing a model of partisanship that explicitly considers America's new racial diversity and evolving nonpartisanship, this book provides the Democratic and Republican parties and other political stakeholders with the means and motivation to more fully engage the diverse range of Americans who remain outside the partisan fray.

Zoltan L. Hajnal is associate professor of political science at the University of California, San Diego.

Taeku Lee is professor of political science and law and chair of the Department of Political Science at the University of California, Berkeley.

APRIL

Paper \$27.95S

978-0-691-14879-3

Cloth \$75.00S

978-0-691-14878-6

344 pages. 28 line illus. 30 tables. 6 x 9.

POLITICAL SCIENCE

PATHS OUT OF DIXIE

The Democratization of Authoritarian Enclaves
in America's Deep South

ROBERT MICKEY

The transformation of the American South—from authoritarian to democratic rule—is the most important political development since World War II. It has re-sorted voters into parties, remapped presidential elections, and helped polarize Congress. Most important, it is the final step in America's democratization. *Paths Out of Dixie* illuminates this sea change by analyzing the democratization experiences of Georgia, Mississippi, and South Carolina.

Robert Mickey argues that Southern states, from the 1890s until the early 1970s, constituted pockets of authoritarian rule trapped within and sustained by a federal democracy. These enclaves—devoted to cheap agricultural labor and white supremacy—were established by conservative Democrats to protect their careers and clients. From the abolition of the whites-only Democratic primary in 1944 until the national party reforms of the early 1970s, enclaves were battered and destroyed by a series of democratization pressures from inside and outside their borders. Drawing on archival research, Mickey traces how Deep South rulers—dissimilar in their internal conflict and political institutions—varied in their responses to these challenges. Ultimately, enclaves differed in their degree of violence, incorporation of African Americans, and reconciliation of Democrats with the national party. These diverse paths generated political and economic legacies that continue to reverberate today.

Robert Mickey is associate professor of political science at the University of Michigan.

PRINCETON STUDIES IN AMERICAN POLITICS: HISTORICAL,
INTERNATIONAL, AND COMPARATIVE PERSPECTIVES
Ira Katznelson, Martin Shefter, and Theda Skocpol, Series Editors

JULY

Paper \$29.95S

978-0-691-14963-9

Cloth \$75.00S

978-0-691-13338-6

392 pages. 4 halftones. 9 line illus.

12 tables. 6 x 9.

POLITICAL SCIENCE ■
AMERICAN HISTORY

THE NEW GLOBAL RULERS

The Privatization of Regulation in the World Economy

GLOBAL PRIVATE REGULATION—
WHO WINS, WHO LOSES, AND WHY

TIM BÜTHE & WALTER MATTLI

Over the past two decades, governments have delegated extensive regulatory authority to international private-sector organizations. This internationalization and privatization of rule making has been motivated not only by the economic benefits of common rules for global markets, but also by the realization that government regulators often lack the expertise and resources to deal with increasingly complex and urgent regulatory tasks. *The New Global Rulers* examines who writes the rules in international private organizations, as well as who wins, who loses—and why.

Tim Büthe and Walter Mattli examine three powerful global private regulators: the International Accounting Standards Board, which develops financial reporting rules used by corporations in more than a hundred countries; and the International Organization for Standardization and the International Electrotechnical Commission, which account for 80 percent of all international product standards. Büthe and Mattli offer both a new framework for understanding global private regulation and detailed empirical analyses of such regulation based on multi-country, multi-industry business surveys. They find that global rule making by technical experts is highly political, and that even though rule making has shifted to the international level, domestic institutions remain crucial. Influence in this form of global private governance is not a function of the economic power of states, but of the ability of domestic standard-setters to provide timely information and speak with a single voice. Büthe and Mattli show how domestic institutions' abilities differ, particularly between the two main standardization players, the United States and Europe.

Tim Büthe is assistant professor of political science at Duke University. **Walter Mattli** is professor of international political economy and a fellow of St. John's College, University of Oxford. His books include *The Politics of Global Regulation* (Princeton).

"Analytically powerful. Both the empirical material and the theoretical analysis are significant contributions, and I think they will be quite influential. The book's impact will be enhanced by its unusually clear writing and engaging discussions of history and examples. It is a very accessible volume, which should give it considerable crossover appeal beyond international-relations scholars."

—Kenneth W. Abbott, Arizona State University

APRIL

Cloth \$27.95S

978-0-691-14479-5

312 pages. 13 halftones. 9 line illus.
20 tables. 6 x 9.

POLITICAL SCIENCE ■
INTERNATIONAL RELATIONS

PRESS.PRINCETON.EDU

POLITICS AND STRATEGY

Partisan Ambition and American Statecraft

PETER TRUBOWITZ

Why do some national leaders pursue ambitious grand strategies and adventuresome foreign policies while others do not? When do leaders boldly confront foreign threats and when are they less assertive? *Politics and Strategy* shows that grand strategies are Janus-faced: their formulation has as much to do with a leader's ability to govern at home as it does with maintaining the nation's security abroad. Drawing on the American political experience, Peter Trubowitz reveals how variations in domestic party politics and international power have led presidents from George Washington to Barack Obama to pursue strategies that differ widely in international ambition and cost. He considers why some presidents overreach in foreign affairs while others fail to do enough.

Trubowitz pushes the understanding of grand strategy beyond traditional approaches that stress only international forces or domestic interests. He provides insights into how past leaders responded to cross-pressures between geopolitics and party politics, and how similar issues continue to bedevil American statecraft today. He suggests that the trade-offs shaping American leaders' foreign policy choices are not unique—analogue trade-offs confront Chinese and Russian leaders as well.

Combining innovative theory and historical analysis, *Politics and Strategy* answers classic questions of statecraft and offers new ideas for thinking about grand strategies and the leaders who make them.

Peter Trubowitz is associate professor of government at the University of Texas, Austin. He is the author of *Defining the National Interest*.

PRINCETON STUDIES IN
INTERNATIONAL HISTORY AND POLITICS
G. John Ikenberry and Marc Trachtenberg, Series Editors

MAY

Paper \$22.95

978-0-691-14958-5

Cloth \$70.00

978-0-691-14957-8

200 pages. 3 line illus. 11 tables. 6 x 9.

POLITICAL SCIENCE ■
INTERNATIONAL RELATIONS

WORSE THAN A MONOLITH

Alliance Politics and
Problems of Coercive Diplomacy in Asia

THOMAS J. CHRISTENSEN

In brute-force struggles for survival, such as the two World Wars, disorganization and divisions within an enemy alliance are to one's own advantage. However, most international security politics involve coercive diplomacy and negotiations short of all-out war. *Worse Than a Monolith* demonstrates that when states are engaged in coercive diplomacy—combining threats and assurances to influence the behavior of real or potential adversaries—divisions, rivalries, and lack of coordination within the opposing camp often make it more difficult to prevent the onset of conflict, to prevent existing conflicts from escalating, and to negotiate the end to those conflicts promptly. Focusing on relations between the Communist and anti-Communist alliances in Asia during the cold war, Thomas Christensen explores how internal divisions and lack of cohesion in the two alliances complicated and undercut coercive diplomacy by sending confusing signals about strength, resolve, and intent. In the case of the Communist camp, internal mistrust and rivalries catalyzed the movement's aggressiveness in ways that we would not have expected from a more cohesive movement under Moscow's clear control.

While recognizing clear differences between the cold war and post-cold war environments, the author investigates how efforts to adjust burden-sharing roles among the United States and its Asian security partners have complicated U.S.-China security relations since the collapse of the Soviet Union.

Thomas J. Christensen is professor of politics and international affairs at Princeton University.

PRINCETON STUDIES IN
INTERNATIONAL HISTORY AND POLITICS
G. John Ikenberry and Marc Trachtenberg, Series Editors

MAY

Paper \$24.95

978-0-691-14261-6

Cloth \$70.00

978-0-691-14260-9

320 pages. 6 x 9.

POLITICAL SCIENCE ■
INTERNATIONAL RELATIONS

MAKING VOLUNTEERS

Civic Life after Welfare's End

NINA ELIASOPH

Volunteering improves inner character, builds community, cures poverty, and prevents crime. We've all heard this kind of empowerment talk from nonprofit and government-sponsored civic programs. But what do these programs really accomplish? In *Making Volunteers*, Nina Eliasoph offers an in-depth, humorous, wrenching, and at times uplifting look inside youth and adult civic programs. She reveals an urgent need for policy reforms in order to improve these organizations and shows that while volunteers learn important lessons, they are not always the lessons that empowerment programs aim to teach.

With short-term funding and a dizzy mix of mandates from multiple sponsors, community programs develop a complex web of intimacy, governance, and civic life. Eliasoph describes the at-risk youth volunteers served by such programs, the college-bound volunteers who hope to feel selfless inspiration and plump up their resumé's, and what happens when the two groups are expected to bond instantly through short-term projects. She looks at adult "plug-in" volunteers who, working in after-school programs with a limited amount of time, hope to become like beloved aunts to youth. Eliasoph indicates that adult volunteers can provide grassroots support but they can also undermine the family-like warmth created by paid organizers. Exploring contradictions between the democratic rhetoric of empowerment programs and the bureaucratic hurdles that volunteers learn to navigate, the book demonstrates that empowerment projects work best with less precarious funding, more careful planning, and mandatory training, reflection, and long-term commitments from volunteers.

Based on participant research inside civic and community organizations, *Making Volunteers* illustrates what these programs can and cannot achieve, and how to make them more effective.

Nina Eliasoph is associate professor of sociology at the University of Southern California. She is the author of *Avoiding Politics*.

PRINCETON STUDIES IN CULTURAL SOCIOLOGY
Paul J. DiMaggio, Michèle Lamont, Robert J. Wuthnow,
and Viviana A. Zelizer, Series Editors

AN INSIDE LOOK AT HOW COMMUNITY SERVICE
ORGANIZATIONS REALLY WORK

"This clear and engaging book shows how community organizations really work. Nina Eliasoph tackles tensions that run through well-meaning organizations and lives, and she illustrates how people struggle with inequality, differences, having to be nice, and wanting to promote community but accomplishing much less than they desire or realize."

—Robert Wuthnow, Princeton University

"This book is a pleasure to read—smart, insightful, tragic, ironic, and funny. Eliasoph brings to life the complicated relationships and dilemmas that surface in youth programs, and the twists and turns of the author's analysis are extremely compelling. This book is a must-read for those participating in NGOs, those trumpeting the virtues of volunteer work, and those social scientists interested in questions of government, community building, and civic culture."

—Lynne Haney, New York University

APRIL

Cloth \$39.50S

978-0-691-14709-3

336 pages. 6 x 9.

SOCIOLOGY ■ POLITICAL SCIENCE

PRESS.PRINCETON.EDU

A FASCINATING LOOK AT THE
EVOLUTIONARY ORIGINS OF COOPERATION

A COOPERATIVE SPECIES

Human Reciprocity and Its Evolution

SAMUEL BOWLES & HERBERT GINTIS

“*A Cooperative Species* is an important book by two masters in their field. It deals with a topic that is of great contemporary interest and presents, clearly and logically, a wealth of up-to-date material from a wide range of disciplines.”

—R. E. Rowthorn, professor emeritus,
University of Cambridge

“This is an outstanding book. Drawing from the state of knowledge across several behavioral disciplines, it will be an invaluable resource for anyone interested in the theoretical and empirical aspects of the evolution of cooperation.”

—Simon Gächter, University of Nottingham

Why do humans, uniquely among animals, cooperate in large numbers to advance projects for the common good? Contrary to the conventional wisdom in biology and economics, this generous and civic-minded behavior is widespread and cannot be explained simply by far-sighted self-interest or a desire to help close genealogical kin.

In *A Cooperative Species*, Samuel Bowles and Herbert Gintis—pioneers in the new experimental and evolutionary science of human behavior—show that the central issue is not why selfish people act generously, but instead how genetic and cultural evolution has produced a species in which substantial numbers make sacrifices to uphold ethical norms and to help even total strangers.

The authors describe how, for thousands of generations, cooperation with fellow group members has been essential to survival. Groups that created institutions to protect the civic-minded from exploitation by the selfish flourished and prevailed in conflicts with less cooperative groups. Key to this process was the evolution of social emotions such as shame and guilt, and our capacity to internalize social norms so that acting ethically became a personal goal rather than simply a prudent way to avoid punishment.

Using experimental, archaeological, genetic, and ethnographic data to calibrate models of the coevolution of genes and culture as well as prehistoric warfare and other forms of group competition, *A Cooperative Species* provides a compelling and novel account of how humans came to be moral and cooperative.

Samuel Bowles heads the Behavioral Sciences Program at the Santa Fe Institute and teaches economics at the University of Siena. **Herbert Gintis** holds faculty positions at the Santa Fe Institute, Central European University, and the University of Siena. The authors' recent research has appeared in *Science*, *Nature*, *American Economic Review*, *Journal of Theoretical Biology*, *Behavioral and Brain Sciences*, and *Current Anthropology*.

JUNE

Cloth \$35.00S

978-0-691-15125-0

349 pages. 48 line illus.

23 tables. 2 maps. 7 x 10.

ECONOMICS ■ ANTHROPOLOGY ■
BIOLOGY

PRESS.PRINCETON.EDU

EXCHANGE-RATE DYNAMICS

A COMPREHENSIVE AND IN-DEPTH LOOK
AT EXCHANGE-RATE DYNAMICS

MARTIN D. D. EVANS

Variations in the foreign exchange market influence all aspects of the world economy, and understanding these dynamics is one of the great challenges of international economics. This book provides a new, comprehensive, and in-depth examination of the standard theories and latest research in exchange-rate economics. Covering a vast swath of theoretical and empirical work, the book explores established theories of exchange-rate determination using macroeconomic fundamentals, and presents unique microbased approaches that combine the insights of microstructure models with the macroeconomic forces driving currency trading.

Macroeconomic models have long assumed that agents—households, firms, financial institutions, and central banks—all have the same information about the structure of the economy and therefore hold the same expectations and uncertainties regarding foreign currency returns. Microbased models, however, look at how heterogeneous information influences the trading decisions of agents and becomes embedded in exchange rates. Replicating key features of actual currency markets, these microbased models generate a rich array of empirical predictions concerning trading patterns and exchange-rate dynamics that are strongly supported by data. The models also show how changing macroeconomic conditions exert an influence on short-term exchange-rate dynamics via their impact on currency trading.

Designed for graduate courses in international macroeconomics, international finance, and finance, and as a go-to reference for researchers in international economics, *Exchange-Rate Dynamics* guides readers through a range of literature on exchange-rate determination, offering fresh insights for further reading and research.

- ◆ Comprehensive and in-depth examination of the latest research in exchange-rate economics
- ◆ Outlines theoretical and empirical research across the spectrum of modeling approaches
- ◆ Presents new results on the importance of currency trading in exchange-rate determination

Martin D. D. Evans is professor of economics in the Department of Economics and professor of finance in the McDonough School of Business at Georgetown University.

PRINCETON SERIES IN INTERNATIONAL ECONOMICS
Gene Grossman, Series Editor

“This ambitious and impressive book covers the international macroeconomics and finance literature on nominal exchange-rate determination. It will be a useful reference for those who want to understand standard theoretical models and empirical techniques, and for those who want to specialize in the microstructure of the foreign exchange markets.”

—Pierre-Olivier Gourinchas, University of California, Berkeley

“There is no other book of this kind. Sound and interesting, it provides a rigorous treatment of exchange-rate economics. The new concepts and interpretation of exchange-rate behavior will spur more research in this area. The book will interest a broad community in international finance, practitioners in the foreign exchange market, and policymakers.”

—Lucio Sarno, Cass Business School, City University London

MAY

Cloth \$75.00S

978-0-691-15089-5

600 pages. 46 line illus. 34 tables. 7 x 10.

ECONOMICS ■ FINANCE

PRESS.PRINCETON.EDU

THE POVERTY OF CLIO

Resurrecting Economic History

FRANCESCO BOLDIZZONI

The Poverty of Clio challenges the hold that cliometrics—an approach to economic history that employs the analytical tools of economists—has exerted on the study of our economic past. In this provocative book, Francesco Boldizzoni calls for the reconstruction of economic history, one in which history and the social sciences are brought to bear on economics, and not the other way around.

Boldizzoni questions the appeal of economics over history—which he identifies as a distinctly American attitude—exposing its errors and hidden ideologies, and revealing how it fails to explain economic behavior itself. He shows how the misguided reliance on economic reasoning to interpret history has come at the expense of insights from the humanities and led to a rejection of valuable past historical research. Developing a better alternative to new institutional economics and the rational choice approach, Boldizzoni builds on the extraordinary accomplishments of twentieth-century European historians and social thinkers to offer fresh ideas for the renewal of the field.

Economic history needs to rediscover the true relationship between economy and culture, and promote an authentic alliance with the social sciences, starting with sociology and anthropology. It must resume its dialogue with the humanities, but without shrinking away from theory when constructing its models. *The Poverty of Clio* demonstrates why history must exert its own creative power on economics.

Francesco Boldizzoni is research fellow in economic history at Università Bocconi in Italy and a life member of Clare Hall, University of Cambridge. He is the author of *Means and Ends: The Idea of Capital in the West, 1500–1970*.

AUGUST

Cloth \$39.50S

978-0-691-14400-9

216 pages. 4 line illus. 6 x 9.

ECONOMICS ■ HISTORY

UNIFIED GROWTH THEORY

ODED GALOR

For most of the vast span of human history, economic growth was all but nonexistent. Then, about two centuries ago, some nations began to emerge from this epoch of economic stagnation, experiencing sustained economic growth that led to significant increases in standards of living and profoundly altered the level and distribution of wealth, population, education, and health across the globe. The question ever since has been—why?

This is the first book to put forward a unified theory of economic growth that accounts for the entire growth process, from the dawn of civilization to today. Oded Galor, who founded the field of unified growth theory, identifies the historical and prehistorical forces behind the differential transition timing from stagnation to growth and the emergence of income disparity around the world. Galor shows how the interaction between technological progress and population ultimately raised the importance of education in coping with the rapidly changing technological environment, brought about significant reduction in fertility rates, and enabled some economies to devote greater resources toward a steady increase in per capita income, paving the way for sustained economic growth.

- ◆ Presents a unified theory of economic growth from the dawn of civilization to today
- ◆ Explains the worldwide disparities in living standards and population we see today
- ◆ Provides a comprehensive overview of the three phases of the development process
- ◆ Analyzes the Malthusian theory and its empirical support
- ◆ Examines theories of demographic transition and their empirical significance
- ◆ Explores the interaction between economic development and human evolution

Oded Galor is the Herbert H. Goldberger Professor of Economics at Brown University.

JUNE

Cloth \$59.50S

978-0-691-13002-6

328 pages. 74 line illus. 12 tables. 6 x 9.

ECONOMICS ■ HISTORY

STATES OF CREDIT

Size, Power, and the Development
of European Polities

DAVID STASAVAGE

States of Credit provides the first comprehensive look at the joint development of representative assemblies and public borrowing in Europe during the medieval and early modern eras. In this pioneering book, David Stasavage argues that unique advances in political representation allowed certain European states to gain early and advantageous access to credit, but the emergence of an active form of political representation itself depended on two underlying factors: compact geography and a strong mercantile presence.

Stasavage shows that active representative assemblies were more likely to be sustained in geographically small polities. These assemblies, dominated by mercantile groups that lent to governments, were in turn more likely to preserve access to credit. Given these conditions, smaller European city-states, such as Genoa and Cologne, had an advantage over larger territorial states, including France and Castile, because mercantile elites structured political institutions in order to effectively monitor public credit. While creditor oversight of public funds became an asset for city-states in need of finance, Stasavage suggests that the long-run implications were more ambiguous. City-states with the best access to credit often had the most closed and oligarchic systems of representation, hindering their ability to accept new economic innovations. This eventually transformed certain city-states from economic dynamos into rentier republics.

Exploring the links between representation and debt in medieval and early modern Europe, *States of Credit* contributes to broad debates about state formation and Europe's economic rise.

David Stasavage is professor of politics at New York University. He is the author of *Public Debt and the Birth of the Democratic State*.

THE PRINCETON ECONOMIC HISTORY OF THE WESTERN WORLD
Joel Mokyr, Series Editor

AUGUST

Cloth \$39.50S

978-0-691-14057-5
240 pages. 9 line illus.
10 tables. 1 map. 6 x 9.

ECONOMICS ■ POLITICAL SCIENCE ■
HISTORY

CREATING WINE

The Emergence of a World Industry, 1840–1914

JAMES SIMPSON

Today's wine industry is characterized by regional differences not only in the wines themselves but also in the business models by which these wines are produced, marketed, and distributed. In Old World countries such as France, Italy, and Spain, small family vineyards and cooperative wineries abound. In New World regions like the United States and Australia, the industry is dominated by a handful of very large producers. This is the first book to trace the economic and historical forces that gave rise to very distinctive regional approaches to creating wine.

James Simpson shows how the wine industry was transformed in the decades leading up to the First World War. Population growth, rising wages, and the railways all contributed to soaring European consumption even as many vineyards were decimated by the vine disease phylloxera. At the same time, new technologies led to a major shift in production away from Europe's traditional winemaking regions. Small family producers in Europe developed institutions such as regional appellations and cooperatives to protect their commercial interests as large integrated companies built new markets in America and elsewhere. Simpson examines how Old and New World producers employed diverging strategies to adapt to the changing global wine industry.

Creating Wine includes chapters on Europe's cheap commodity wine industry; the markets for sherry, port, claret, and champagne; and the new wine industries in California, Australia, and Argentina.

James Simpson is professor of economic history and institutions at the Carlos III University of Madrid. He is the author of *Spanish Agriculture: The Long Siesta, 1765–1965*.

THE PRINCETON ECONOMIC HISTORY OF THE WESTERN WORLD
Joel Mokyr, Series Editor

AUGUST

Cloth \$35.00S

978-0-691-13603-5
344 pages. 20 halftones. 28 line illus.
45 tables. 6 maps. 6 x 9.

ECONOMICS ■ WINE

THE TYRANNY OF UTILITY

Behavioral Social Science and
the Rise of Paternalism

GILLES SAINT-PAUL

The general assumption that social policy should be utilitarian—that society should be organized to yield the greatest level of welfare—leads inexorably to increased government interventions. Historically, however, the science of economics has advocated limits to these interventions for utilitarian reasons and because of the assumption that people know what is best for themselves. But more recently, behavioral economics has focused on biases and inconsistencies in individual behavior. Based on these developments, governments now prescribe the foods we eat, the apartments we rent, and the composition of our financial portfolios. *The Tyranny of Utility* takes on this rise of paternalism and its dangers for individual freedoms, and examines how developments in economics and the social sciences are leading to greater government intrusion in our private lives.

Gilles Saint-Paul posits that the utilitarian foundations of individual freedom promoted by traditional economics are fundamentally flawed. When combined with developments in social science that view the individual as incapable of making rational and responsible choices, utilitarianism seems to logically call for greater governmental intervention in our lives. Arguing that this cannot be defended on purely instrumental grounds, Saint-Paul calls for individual liberty to be restored as a central value in our society.

Exploring how behavioral economics is contributing to the excessive rise of paternalistic interventions, *The Tyranny of Utility* presents a controversial challenge to the prevailing currents in economic and political discourse.

Gilles Saint-Paul is professor of economics at the Toulouse School of Economics. His books include *Innovation and Inequality* (Princeton).

AUGUST

Cloth \$35.00S

978-0-691-12817-7

160 pages. 6 x 9.

ECONOMICS ■ PUBLIC POLICY

THE ECONOMICS OF LINGUISTIC DIVERSITY

How Many Languages Make Sense?

VICTOR GINSBURGH &
SHLOMO WEBER

In the global economy, linguistic diversity influences economic and political development as well as public policies in positive and negative ways. It leads to financial costs, communication barriers, divisions in national unity, and, in some extreme cases, conflicts and war—but it also produces benefits related to group and individual identity. What are the specific advantages and disadvantages of linguistic diversity and how does it influence social and economic progress? This book examines linguistic diversity as a global social phenomenon and considers what degree of linguistic variety might result in the greatest economic good.

Victor Ginsburgh and Shlomo Weber look at linguistic proximity between groups and between languages. They describe and use simple economic, linguistic, and statistical tools to measure diversity's impact on growth, development, trade, the quality of institutions, translation issues, voting patterns in multinational competitions, and the likelihood and intensity of civil conflicts. They address the choosing of core languages in a multilingual community, such as the European Union, and argue that although too many official languages might harm cohesiveness, efficiency, and communication, reducing their number brings about alienation and disenfranchisement of groups.

Victor Ginsburgh is professor of economics emeritus, member of the European Center for Advanced Research in Economics and Statistics, Brussels, and member of the Center of Operations Research and Econometrics, Louvain-la-Neuve, Belgium.

Shlomo Weber is the Robert H. and Nancy Dedman Trustee Professor of Economics at Southern Methodist University and professor of economics at the New Economic School, Moscow.

MAY

Cloth \$35.00S

978-0-691-13689-9

256 pages. 2 line illus. 34 tables. 6 x 9.

ECONOMICS ■ LINGUISTICS

THE GENERAL EQUILIBRIUM THEORY OF VALUE

YVES BALASKO

The concept of general equilibrium, one of the central components of economic theory, explains the behavior of supply, demand, and prices by showing that supply and demand exist in balance through pricing mechanisms. The mathematical tools and properties for this theory have developed over time to accommodate and incorporate developments in economic theory, from multiple markets and economic agents to theories of production.

In this book, Yves Balasko offers an extensive, up-to-date look at the standard theory of general equilibrium, to which he has been a major contributor. This book explains how the equilibrium manifold approach can be usefully applied to the general equilibrium model, from basic consumer theory and exchange economies to models with private ownership of production. Balasko examines properties of the standard general equilibrium model that are beyond traditional existence and optimality. He applies the theory of smooth manifolds and mappings to the multiplicity of equilibrium solutions and related discontinuities of market prices. The economic concepts and differential topology methods presented in this book are accessible, clear, and relevant, and no prior knowledge of economic theory is necessary.

The General Equilibrium Theory of Value offers a comprehensive foundation for the most current models of economic theory and is ideally suited for graduate economics students, advanced undergraduates in mathematics, and researchers in the field.

Yves Balasko is professor of economics at the University of York. He is the author of *Foundations of the Theory of General Equilibrium* and *The Equilibrium Manifold*.

JULY

Cloth \$39.95S

978-0-691-14679-9

192 pages. 8 line illus. 6 x 9.

ECONOMICS ■ MATHEMATICS

PHASE TRANSITIONS

RICARD V. SOLÉ

Phase transitions—the different states of organization or phases in a complex system—have long helped to explain physics concepts, such as why water freezes into a solid or boils to become a gas. How might phase transitions shed light on important problems in biological and ecological complex systems? Exploring the origins and implications of sudden changes in nature and society, *Phase Transitions* examines different dynamical behaviors in a broad range of complex systems. Using a compelling set of examples, from gene networks and ant colonies to human language and the degradation of diverse ecosystems, the book illustrates the power of simple models to reveal how phase transitions occur.

Introductory chapters provide the critical concepts and mathematical techniques of statistical physics and nonlinear dynamics behind phase transitions. In a series of example-driven chapters, Ricard Solé shows how such concepts and techniques can be applied to the analysis and prediction of complex system behavior, including the origins of life, viral replication, epidemics, language evolution, and the emergence and breakdown of societies.

Written at an undergraduate mathematical level, this cutting-edge book provides the essential theoretical tools and foundations required to develop basic models to explain collective phase transitions for a wide variety of ecosystems.

Ricard V. Solé is research professor and head of the Complex Systems Lab at Pompeu Fabra University and external professor at the Santa Fe Institute. He is the coauthor of *Signs of Life* (Basic) and *Self-Organization in Complex Ecosystems* (Princeton).

PRIMERS IN COMPLEX SYSTEMS

SEPTEMBER

Paper \$29.95S

978-0-691-15075-8

264 pages. 6 halftones. 67 line illus.

1 table. 5 1/2 x 8 1/2.

BIOLOGY

ADAPTIVE DIVERSIFICATION

MICHAEL DOEBELI

Understanding the mechanisms driving biological diversity remains a central problem in ecology and evolutionary biology. Traditional explanations assume that differences in selection pressures lead to different adaptations in geographically separated locations. This book takes a different approach and explores adaptive diversification—diversification rooted in ecological interactions and frequency-dependent selection. In any ecosystem, birth and death rates of individuals are affected by interactions with other individuals. What is an advantageous phenotype therefore depends on the phenotype of other individuals, and it may often be best to be ecologically different from the majority phenotype. Such rare-type advantage is a hallmark of frequency-dependent selection and opens the scope for processes of diversification that require ecological contact rather than geographical isolation.

Michael Doebeli investigates adaptive diversification using the mathematical framework of adaptive dynamics. Evolutionary branching is a paradigmatic feature of adaptive dynamics that serves as a basic metaphor for adaptive diversification, and Doebeli explores the scope of evolutionary branching in many different ecological scenarios, including models of coevolution, cooperation, and cultural evolution. He also uses alternative modeling approaches. Stochastic, individual-based models are particularly useful for studying adaptive speciation in sexual populations, and partial differential equation models confirm the pervasiveness of adaptive diversification.

Michael Doebeli is a professor in the departments of zoology and mathematics at the University of British Columbia.

MONOGRAPHS IN POPULATION BIOLOGY
Simon A. Levin and Henry S. Horn, Series Editors

SEPTEMBER

Paper \$49.50S

978-0-691-12894-8

Cloth \$110.00S

978-0-691-12893-1

392 pages. 8 halftones.

52 line illus. 6 x 9.

ECOLOGY ■ BIOLOGY

POLLINATION AND FLORAL ECOLOGY

PAT WILLMER

Pollination and Floral Ecology is the most comprehensive single-volume reference to all aspects of pollination biology—and the first fully up-to-date resource of its kind to appear in decades. This beautifully illustrated book describes how flowers use colors, shapes, and scents to advertise themselves; how they offer pollen and nectar as rewards; and how they share complex interactions with beetles, birds, bats, bees, and other creatures. The ecology of these interactions is covered in depth, including the timing and patterning of flowering, competition among flowering plants to attract certain visitors and deter others, and the many ways plants and animals can cheat each other.

Pollination and Floral Ecology pays special attention to the prevalence of specialization and generalization in animal-flower interactions, and examines how a lack of distinction between casual visitors and true pollinators can produce misleading conclusions about flower evolution and animal-flower mutualism. This one-of-a-kind reference also gives insights into the vital pollination services that animals provide to crops and native flora, and sets these issues in the context of today's global pollination crisis.

- ◆ Provides the most up-to-date resource on pollination and floral ecology
- ◆ Describes flower advertising features and rewards, foraging and learning by flower-visiting animals, behaviors of generalist and specialist pollinators—and more
- ◆ Examines the ecology and evolution of animal-flower interactions, from the molecular to macroevolutionary scale

Pat Willmer is professor of zoology at the University of St. Andrews. She has published extensively on pollination biology in leading scientific journals. Her books include *Environmental Physiology of Animals*.

AUGUST

Cloth \$95.00S

978-0-691-12861-0

840 pages. 296 color illus. 440 line illus.

93 tables. 7 x 10.

ECOLOGY ■ BIOLOGY

TROPICAL ECOLOGY

THE ESSENTIAL TEXTBOOK ON TROPICAL ECOLOGY

JOHN KRICHER

This full-color illustrated textbook offers the first comprehensive introduction to all major aspects of tropical ecology. It explains why the world's tropical rain forests are so universally rich in species, what factors may contribute to high species richness, how nutrient cycles affect rain forest ecology, and how ecologists investigate the complex interrelationships among flora and fauna. It covers tropical montane ecology, riverine ecosystems, savanna, dry forest—and more.

Tropical Ecology begins with a historical overview followed by a sweeping discussion of biogeography and evolution, and then introduces students to the unique and complex structure of tropical rain forests. Other topics include the processes that influence everything from species richness to rates of photosynthesis; how global climate change may affect rain forest characteristics and function; how fragmentation of ecosystems affects species richness and ecological processes; human ecology in the tropics; biodiversity; and conservation of tropical ecosystems and species.

Drawing on real-world examples taken from actual research, *Tropical Ecology* is the best textbook on the subject for advanced undergraduates and graduate students.

- ◆ Offers the first comprehensive introduction to tropical ecology
- ◆ Describes all the major kinds of tropical terrestrial ecosystems
- ◆ Explains species diversity, evolutionary processes, and coevolutionary interactions
- ◆ Features numerous color illustrations and examples from actual research
- ◆ Covers global warming, deforestation, reforestation, fragmentation, and conservation
- ◆ The essential textbook for advanced undergraduates and graduate students
- ◆ Suitable for courses with a field component

John Kricher is professor of biology at Wheaton College in Massachusetts. His books include *The Balance of Nature: Ecology's Enduring Myth* and *A Neotropical Companion* (both Princeton).

“Finally, an appropriate general text to use in tropical biology courses. Other books on tropical rain forest ecology are either too general or too technical for use in undergraduate or even graduate courses, so this book definitely fills a need.”

—Robert A. Askins, Connecticut College

“Kricher does a remarkable job of bringing the wonder and diversity of tropical ecosystems together into one text, while providing a solid framework in ecological and evolutionary theory. The task of treating the tropics in one accessible book is daunting, and *Tropical Ecology* comes closer to accomplishing that goal than any book I have seen.”

—Gregory S. Gilbert, University of California, Santa Cruz

APRIL

Cloth \$85.00S

978-0-691-11513-9

704 pages. 661 color illus.

10 line illus. 8 x 10.

ECOLOGY ■ BIOLOGY

PRESS.PRINCETON.EDU

NUMERICAL ANALYSIS

L. RIDGWAY SCOTT

Computational science is fundamentally changing how technological questions are addressed. The design of aircraft, automobiles, and even racing sailboats is now done by computational simulation. The mathematical foundation of this new approach is numerical analysis, which studies algorithms for computing expressions defined with real numbers. Emphasizing the theory behind the computation, this book provides a rigorous and self-contained introduction to numerical analysis and presents the advanced mathematics that underpin industrial software, including complete details that are missing from most textbooks.

Using an inquiry-based learning approach, *Numerical Analysis* is written in a narrative style, provides historical background, and includes many of the proofs and technical details in exercises. Students will be able to go beyond an elementary understanding of numerical simulation and develop deep insights into the foundations of the subject. They will no longer have to accept the mathematical gaps that exist in current textbooks. For example, both necessary and sufficient conditions for convergence of basic iterative methods are covered, and proofs are given in full generality, not just based on special cases.

The book is accessible to undergraduate mathematics majors as well as computational scientists wanting to learn the foundations of the subject.

- ◆ Presents the mathematical foundations of numerical analysis
- ◆ Explains the mathematical details behind simulation software
- ◆ Introduces many advanced concepts in modern analysis
- ◆ Self-contained and mathematically rigorous
- ◆ Contains problems and solutions in each chapter

L. Ridgway Scott is the Louis Block Professor of Mathematics and Computer Science at the University of Chicago.

JUNE

Cloth \$65.00S

978-0-691-14686-7

360 pages. 33 line illus. 11 tables. 7 x 10.

MATHEMATICS ■ COMPUTER SCIENCE

VALIDATED NUMERICS

A Short Introduction to Rigorous Computations

WARWICK TUCKER

This textbook provides a comprehensive introduction to the theory and practice of validated numerics, an emerging new field that combines the strengths of scientific computing and pure mathematics. In numerous fields ranging from pharmaceuticals and engineering to weather prediction and robotics, fast and precise computations are essential. Based on the theory of set-valued analysis, a new suite of numerical methods is developed, producing efficient and reliable solvers for numerous problems in nonlinear analysis. Validated numerics yields rigorous computations that can find all possible solutions to a problem while taking into account all possible sources of error—fast, and with guaranteed accuracy.

Validated Numerics offers a self-contained primer on the subject, guiding readers from the basics to more advanced concepts and techniques. This book is an essential resource for those entering this fast-developing field, and it is also the ideal textbook for graduate students and advanced undergraduates needing an accessible introduction to the subject. *Validated Numerics* features many examples, exercises, and computer labs using MATLAB/C++, as well as detailed appendixes and an extensive bibliography for further reading.

Warwick Tucker is associate professor of mathematics and principal investigator for the Computer-Aided Proofs in Analysis (CAPA) Group at Uppsala University in Sweden. He has been honored with several awards, including the European Mathematical Society's Prize for Distinguished Contributions in Mathematics, the R. E. Moore Prize for Applications of Interval Analysis, and the Swedish Mathematical Society's Wallenberg Prize.

JULY

Cloth \$45.00S

978-0-691-14781-9

240 pages. 41 line illus. 12 tables. 6 x 9.

MATHEMATICS ■ COMPUTER SCIENCE

DISCRETE AND COMPUTATIONAL GEOMETRY

SATYAN L. DEVADOSS &
JOSEPH O'ROURKE

Discrete geometry is a relatively new development in pure mathematics, while computational geometry is an emerging area in applications-driven computer science. Their intermingling has yielded exciting advances in recent years, yet what has been lacking until now is an undergraduate textbook that bridges the gap between the two. *Discrete and Computational Geometry* offers a comprehensive yet accessible introduction to this cutting-edge frontier of mathematics and computer science.

This book covers traditional topics such as convex hulls, triangulations, and Voronoi diagrams, as well as more recent subjects like pseudotriangulations, curve reconstruction, and locked chains. It also touches on more advanced material, including Dehn invariants, associahedra, quasigeodesics, Morse theory, and the recent resolution of the Poincaré conjecture. Connections to real-world applications are made throughout, and algorithms are presented independently of any programming language. This richly illustrated textbook also features numerous exercises and unsolved problems.

- ◆ The essential introduction to discrete and computational geometry
- ◆ Covers traditional topics as well as new and advanced material
- ◆ Features numerous full-color illustrations, exercises, and unsolved problems
- ◆ Suitable for sophomores in mathematics, computer science, engineering, or physics
- ◆ Rigorous but accessible
- ◆ Solutions manual (available only to teachers)

Satyan L. Devadoss is associate professor of mathematics at Williams College. **Joseph O'Rourke** is the Olin Professor of Computer Science and professor of mathematics at Smith College. His books include *Geometric Folding Algorithms: Linkages, Origami, Polyhedra*.

AN ESSENTIAL INTRODUCTION TO DISCRETE
AND COMPUTATIONAL GEOMETRY

“This book is ideal for people who want to learn about the topic without wading too deeply into technical details. I really like the figures, and the writing style is very nice for students, with frequent jumps into exercises. The book favors topics that are intuitive, engaging, and easily grasped. It could form the basis of an excellent undergraduate-level course for students in computer science, applied mathematics, and pure mathematics.”

—Samir Khuller, University of Maryland

“I thoroughly enjoyed reading this book. It covers an incredibly diverse set of topics, ranging from elementary objects to deep mathematical concepts and important computational problems. Devadoss and O'Rourke have done a remarkable job of showing off the rich interplay between pure mathematics and computing that drives our research community. There really is nothing else like this on the market.”

—Jeff Erickson, University of Illinois, Urbana-Champaign

MAY

Cloth \$49.50S

978-0-691-14553-2

280 pages. 182 color illus.

4 line illus. 7 tables. 7 x 10.

MATHEMATICS ■ COMPUTER SCIENCE

PRESS.PRINCETON.EDU

WEYL GROUP MULTIPLE DIRICHLET SERIES

Type A Combinatorial Theory

BEN BRUBAKER, DANIEL BUMP & SOLOMON FRIEDBERG

Weyl group multiple Dirichlet series are generalizations of the Riemann zeta function. Like the Riemann zeta function, they are Dirichlet series with analytic continuation and functional equations, having applications to analytic number theory. By contrast, these Weyl group multiple Dirichlet series may be functions of several complex variables and their groups of functional equations may be arbitrary finite Weyl groups. Furthermore, their coefficients are multiplicative up to roots of unity, generalizing the notion of Euler products. This book proves foundational results about these series and develops their combinatorics.

These interesting functions may be described as Whittaker coefficients of Eisenstein series on metaplectic groups, but this characterization doesn't readily lead to an explicit description of the coefficients. The coefficients may be expressed as sums over Kashiwara crystals, which are combinatorial analogs of characters of irreducible representations of Lie groups. For Cartan Type A, there are two distinguished descriptions, and if these are known to be equal, the analytic properties of the Dirichlet series follow. Proving the equality of the two combinatorial definitions of the Weyl group multiple Dirichlet series requires the comparison of two sums of products of Gauss sums over lattice points in polytopes. Through a series of surprising combinatorial reductions, this is accomplished.

Ben Brubaker is assistant professor of mathematics at Massachusetts Institute of Technology. **Daniel Bump** is professor of mathematics at Stanford University. **Solomon Friedberg** is professor of mathematics at Boston College.

ANNALS OF MATHEMATICS STUDIES, 175

Phillip A. Griffiths, John N. Mather, and Elias M. Stein, Series Editors

JUNE

Paper \$49.50S

978-0-691-15066-6

Cloth \$85.00S

978-0-691-15065-9

184 pages. 168 line illus. 6 x 9.

MATHEMATICS

COMPUTATIONAL ASPECTS OF MODULAR FORMS AND GALOIS REPRESENTATIONS

How One Can Compute in Polynomial Time the Value of Ramanujan's Tau at a Prime

EDITED BY BAS EDIXHOVEN & JEAN-MARC COUVEIGNES

With Robin de Jong, Franz Merkl & Johan Bosman

Modular forms are tremendously important in various areas of mathematics, from number theory and algebraic geometry to combinatorics and lattices. Their Fourier coefficients, with Ramanujan's tau-function as a typical example, have deep arithmetic significance. Prior to this book, the fastest known algorithms for computing these Fourier coefficients took exponential time, except in some special cases. The case of elliptic curves (Schoof's algorithm) was at the birth of elliptic curve cryptography around 1985. This book gives an algorithm for computing coefficients of modular forms of level one in polynomial time. For example, Ramanujan's tau of a prime number p can be computed in time bounded by a fixed power of the logarithm of p . Such fast computation of Fourier coefficients is itself based on the main result of the book: the computation, in polynomial time, of Galois representations over finite fields attached to modular forms by the Langlands program. Because these Galois representations typically have a nonsolvable image, this result is a major step forward from explicit class field theory, and it could be described as the start of the explicit Langlands program.

Bas Edixhoven is professor of mathematics at the University of Leiden. **Jean-Marc Couveignes** is professor of mathematics at the University of Toulouse le Mirail. **Robin de Jong** is assistant professor at the University of Leiden. **Franz Merkl** is professor of applied mathematics at the University of Munich. **Johan Bosman** is a postdoctoral researcher at the Institut für Experimentelle Mathematik in Essen, Germany.

ANNALS OF MATHEMATICS STUDIES, 176

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JULY

Paper \$65.00S

978-0-691-14202-9

Cloth \$100.00S

978-0-691-14201-2

440 pages. 6 line illus. 6 x 9.

MATHEMATICS

TOTALLY NONNEGATIVE MATRICES

SHAUN M. FALLAT &
CHARLES R. JOHNSON

Totally nonnegative matrices arise in a remarkable variety of mathematical applications. This book is a comprehensive and self-contained study of the essential theory of totally nonnegative matrices, defined by the nonnegativity of all subdeterminants. It explores methodological background, historical highlights of key ideas, and specialized topics.

The book uses classical and ad hoc tools, but a unifying theme is the elementary bidiagonal factorization, which has emerged as the single most important tool for this particular class of matrices. Recent work has shown that bidiagonal factorizations may be viewed in a succinct combinatorial way leading to many deep insights. Despite slow development, bidiagonal factorizations, along with determinants, now provide the dominant methodology for understanding total nonnegativity. The remainder of the book carefully treats important topics, such as recognition of totally nonnegative or totally positive matrices, variation diminution, spectral properties, determinantal inequalities, Hadamard products, and completion problems associated with totally nonnegative or totally positive matrices. The book also contains sample applications, an up-to-date bibliography, a glossary of all symbols used, an index, and related references.

Shaun M. Fallat is professor of mathematics and statistics at the University of Regina. **Charles R. Johnson** is the Class of 1961 Professor of Mathematics at the College of William & Mary.

PRINCETON SERIES IN APPLIED MATHEMATICS
Ingrid Daubechies, Weinan E, Jan Karel Lenstra, and Endre Süli,
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JUNE

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264 pages. 21 line illus. 3 tables. 6 x 9.

MATHEMATICS

MODERN ANTI-WINDUP SYNTHESIS

LUCA ZACCARIAN &
ANDREW R. TEEL

This book provides a wide variety of state-space-based numerical algorithms for the synthesis of feedback algorithms for linear systems with input saturation. Specifically, it addresses and solves the anti-windup problem, presenting the objectives and terminology of the problem, the mathematical tools behind anti-windup algorithms, and more than twenty algorithms for anti-windup synthesis, illustrated with examples. Luca Zaccarian and Andrew Teel's modern method—combining a state-space approach with algorithms generated by solving linear matrix inequalities—treats MIMO and SISO systems with equal ease. The book, aimed at control engineers as well as graduate students, ranges from very simple anti-windup construction to sophisticated anti-windup algorithms for nonlinear systems.

Luca Zaccarian is associate professor of control engineering at the University of Rome, Tor Vergata. **Andrew R. Teel** is a professor in the Electrical and Computer Engineering Department at the University of California, Santa Barbara.

PRINCETON SERIES IN APPLIED MATHEMATICS
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Series Editors

AUGUST

Cloth \$69.50S

978-0-691-14732-1

304 pages. 6 halftones. 135 line illus.

5 tables. 6 x 9.

MATHEMATICS

THURSTON'S WORK ON SURFACES

ALBERT FATHI,
FRANÇOIS LAUDENBACH &
VALENTIN POÉNARU

Translated by Djun Kim & Dan Margalit

This book provides a detailed exposition of William Thurston's work on surface homeomorphisms, available here for the first time in English. Based on material of Thurston presented at a seminar in Orsay from 1976 to 1977, it covers topics such as the space of measured foliations on a surface, the Thurston compactification of Teichmüller space, the Nielsen-Thurston classification of surface homeomorphisms, and dynamical properties of pseudo-Anosov diffeomorphisms. Thurston never published the complete proofs, so this text is the only resource for many aspects of the theory.

Thurston was awarded the prestigious Fields Medal in 1982 as well as many other prizes and honors, and is widely regarded to be one of the major mathematical figures of our time. Today, his important and influential work on surface homeomorphisms is enjoying continued interest in areas ranging from the Poincaré conjecture to topological dynamics and low-dimensional topology.

Conveying the extraordinary richness of Thurston's mathematical insight, this elegant and faithful translation from the original French will be an invaluable resource for the next generation of researchers and students.

Albert Fathi is professor at the École Normale Supérieure de Lyon. **François Laudenbach** is professor emeritus at the University of Nantes. **Valentin Poénaru** is professor emeritus at the Université Paris-Sud, Orsay. **Djun Kim** is a SkyLight research associate in mathematics at the University of British Columbia. **Dan Margalit** is assistant professor of mathematics at Georgia Institute of Technology.

MATHEMATICAL NOTES

Phillip A. Griffiths, John N. Mather, and Elias M. Stein, Series Editors

AUGUST

Paper \$55.00S

978-0-691-14735-2

320 pages. 150 line illus. 6 x 9.

MATHEMATICS

A PRIMER ON MAPPING CLASS GROUPS

BENSON FARB & DAN MARGALIT

The study of the mapping class group $\text{Mod}(S)$ is a classical topic that is experiencing a renaissance. It lies at the juncture of geometry, topology, and group theory. This book explains as many important theorems, examples, and techniques as possible, quickly and directly, while at the same time giving full details and keeping the text nearly self-contained. The book is suitable for graduate students.

The book begins by explaining the main group-theoretical properties of $\text{Mod}(S)$, from finite generation by Dehn twists and low-dimensional homology to the Dehn-Nielsen-Baer theorem. Along the way, central objects and tools are introduced, such as the Birman exact sequence, the complex of curves, the braid group, the symplectic representation, and the Torelli group. The book then introduces Teichmüller space and its geometry, and uses the action of $\text{Mod}(S)$ on it to prove the Nielsen-Thurston classification of surface homeomorphisms. Topics include the topology of the moduli space of Riemann surfaces, the connection with surface bundles, pseudo-Anosov theory, and Thurston's approach to the classification.

Benson Farb is professor of mathematics at the University of Chicago. He is the editor of *Problems on Mapping Class Groups and Related Topics* and the coauthor of *Noncommutative Algebra*. **Dan Margalit** is assistant professor of mathematics at Georgia Institute of Technology.

PRINCETON MATHEMATICAL SERIES

Phillip A. Griffiths, John N. Mather, and Elias M. Stein, Series Editors

JUNE

Cloth \$65.00S

978-0-691-14794-9

400 pages. 115 line illus. 6 x 9.

MATHEMATICS

VIEWPOINTS

Mathematical Perspective and
Fractal Geometry in Art

MARC FRANTZ &
ANNALISA CRANNELL

An undergraduate textbook devoted exclusively to relationships between mathematics and art, *Viewpoints* is ideally suited for math-for-liberal-arts courses and mathematics courses for fine arts majors. The textbook contains a wide variety of classroom-tested activities and problems, a series of essays by contemporary artists written especially for the book, and a plethora of pedagogical and learning opportunities for instructors and students.

Viewpoints focuses on two mathematical areas: perspective related to drawing man-made forms and fractal geometry related to drawing natural forms. Bringing students into the three-dimensional world to understand mathematical concepts behind the art, the textbook explores art topics including comic, anamorphic, and classical art, and photography, while presenting such mathematical ideas as proportion, ratio, self-similarity, exponents, and logarithms. Straightforward problems and rewarding solutions empower students to make accurate, sophisticated drawings. Personal essays and short biographies by contemporary artists are interspersed between chapters and are accompanied by images of their work. These fine artists—who include mathematicians and scientists—examine how mathematics influences their art.

Accessible to students of all levels, *Viewpoints* encourages experimentation and collaboration, and captures the essence of artistic and mathematical creation and discovery.

A solutions manual is available to instructors only.

Marc Frantz holds a BFA in painting from the Herron School of Art and an MS in mathematics from Purdue University. He teaches mathematics at Indiana University, Bloomington, where he is a research associate.

Annalisa Crannell is professor of mathematics at Franklin & Marshall College.

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N. Jeremy Kasdin is professor of mechanical and aerospace engineering and lead investigator for the Terrestrial Planet Finder project at Princeton University. **Derek A. Paley** is assistant professor of aerospace engineering and director of the Collective Dynamics and Control Laboratory at the University of Maryland.

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Bruce T. Draine is professor of astrophysical sciences at Princeton University and a member of the National Academy of Sciences.

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Shu T. Lai is a senior physicist in the Space Weather Center of Excellence, Space Vehicles Directorate, Air Force Research Laboratory (AFRL), Hanscom Air Force Base, Massachusetts.

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Thomas S. Bianchi is professor of oceanography at Texas A&M University. **Elizabeth A. Canuel** is professor of marine science at the Virginia Institute of Marine Science, William & Mary College.

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Rudy Slingerland and **Lee Kump** are professors of geosciences at Pennsylvania State University. Slingerland is the coauthor of *Simulating Clastic Sedimentary Basins*. Kump is the coauthor of *The Earth System*.

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