1950's and 1960's. He is so much the rationalist, in fact, that one wonders how fully he understood the psychological need among blacks to adopt aggressive stances toward whites and to free themselves of all semblances of white control. This is the need that underlay Martin Luther King's "beloved community" and pointed to wars of national liberation as a model for black America. "Whatever separatist impulses exist among American Negroes," Rustin declared, "cannot find appropriate models in the colonial world."

Bayard Rustin wrote in 1970 that, like his own career, the pendulum of the history of the black revolution had begun to swing downward. The assassination of Martin Luther King was the real turning point, but even before that tragic day in 1968, Rustin's and King's messages were awaking little response. Whether or not the old Civil Rights Movement, like a sleeping giant, ever stirs again, and whatever one's orientation to black liberation, everyone who shares Rustin's perception that we are all citizens of a world in crisis will learn much from these observations set down during three decades of thoughtful activism by a faithful visionary.

—SHELDON HACKNEY

SHELDON HACKNEY is a prize-winning American historian with a special interest in the life and institutions of the American South. He will officially assume his new duties as Provost of Princeton University in July.

Ehrenfest as Man and Mind


"I have a constant desire to show up suddenly at your home." So wrote Albert Einstein from Berlin to his intense, adoring friend, Paul Ehrenfest, in April, 1916. Ehrenfest, Professor of Physics at the University of Leyden, Holland, was Einstein's soulmate—in Einstein's words "one of the few theoreticians who have not been deprived of their native intelligence by the mathematical epidemic," and "the best teacher in our profession whom I have ever known." Born less than a year apart (Einstein in 1879, Ehrenfest in 1880), both men were drawn to the deepest, most difficult problems of physics, and both were Wandering Jews, moving back and forth across Europe in their early careers, always needing documents to satisfy one bureaucracy or another. Martin Klein, in the most engaging intellectual biography I have ever read, fixes the European academic world of the first decades of this century in our minds by introducing us to a passionate, moody, sardonic, and totally lovable anhiero, who had superb taste in people and problems, and just enough success in physics to be intensely bothered by his own inadequacy.

Klein writes with reverence for that Golden Age, in which heroic labors brought forth most of the results of modern physics. Many a writer has turned such reverence into maudlin sentimentality, and thereby reinforced the impression, unfortunately widespread among nonscientists, that physics is done by supermen uninvolved with their surroundings. Klein knows both science and the times too well to err in this fashion. Consider just one intricacy: Ehrenfest married (and later collaborated with) Tatiana Afanasjeva, a Russian Orthodox colleague at Gottingen three years his senior. For the marriage to be recognized in the Austro-Hungarian empire, both had to declare themselves "unchurched" and to forewear all religious affiliation. Five years later, Ehrenfest could have succeeded Einstein as Professor at Prague, but for a rule that "no one could be appointed to a professorship anywhere in the Austro-Hungarian Empire who had no formal religious affiliation" and his own obstinate consistency.

This biography is like a telescope: Klein is one lens and Ehrenfest the other. Our impressions of the successful physicists of the period are formed, almost exclusively, from a double selection: choices by Klein from a correspondence elicited by Ehrenfest. What emerges is characterization of remarkable economy and precision. Only Einstein appears beyond our reach, and I confess I found it reassuring to find Einstein admitting to "enormous efforts" and "superhuman exertions" in unraveling the "problem of gravitation."

The two lenses are admirably matched. Klein admires Ehrenfest in much the same way that Ehrenfest admired the most creative men around him—and we are left admiring Klein in a similar fashion. In each stage, one is aware of a mind more supple than the stage before: Klein more graceful and more dedicated than we are (he labored fifteen years on this volume, first collecting and editing Ehrenfest's scientific papers); Ehrenfest more driven and more nimble than Klein; and Lorentz, Planck, Boltzmann, and Einstein more inventive and more self-controlled than Ehrenfest. Both Ehrenfest and Klein are self-effacing; had either been egotistical this could easily have clouded our view. The result, in Virginia Woolf's metaphor, is that we, who can ordinarily see only from A to N, are taken by Klein as far as P, who shows us Ehrenfest seeing to S, so that we can fathom how the men he envied might have seen to W.

Klein has interspersed five technical chapters among seven devoted to narrative. There is extremely lucid and meticulous intellectual history in the technical chapters, which describe Ehrenfest's published papers. The reader who has studied some physics will appreciate that the problems he has found too subtle for himself (such as irreversibility) proved just as puzzling for nearly everyone, and thus preoccupied the most serious scientists for entire lifetimes. He will also confront a period of dissatisfaction with ad hoc procedures—the "old quantum mechanics"—similar in many ways to the current period in high energy physics.

Ehrenfest made progress through this muddle, inventing the "adiabatic principle" that helped point the way to the "new" quantum theory of the 1920's. "I know that I have never discovered anything—and quite surely never will discover anything—that I can love so fervently as this train of thought which I found with so much joy," he wrote to Nils Bohr, who built so successfully on Ehrenfest's work.

All of the social history is in the seven narrative chapters. Based in large part on Ehrenfest's own diaries, these take the reader from his childhood in Vienna through his student years in Gottingen and Petersburg and up to 1920, when Ehrenfest had completed 8 years at Leyden. Ehrenfest remained at Leyden until his death in 1933, and the final years are to be the subject of a second volume. Volume I closes with a description of
the personal campaign against Einstein by the Anti-
Einstein League, an early post-war exacerbation of Ger-
man anti-Semitism and nationalism. Einstein, defending
his decision to respond to this attack, wrote Ehrenfest,
"if one is a democrat, one also has to acknowledge the
claims of publicity."

But I would like to close with another of Einstein's
letters to Ehrenfest, from 1917: "You are complaining
about yourself again, and are dissatisfied with yourself.
Just think how little difference it will make in twenty
years how one has festered about on this earth, just so
long as one has done nothing base. Whether you write
this or that article yourself, or whether someone else
writes it, makes very little difference. Stupid you cer-
tainly are not, except insofar as you keep thinking about
whether or not you are stupid. So away with the hypo-
chondria! Rejoice with your family in the beautiful land
of life!"

I personally can only hope that there are still people
who will read a book when some of it is not accessible
to them, if the rest—even by itself—has the qualities of
a modern rhapsody.

—Robert H. Socolow

Associate Professor of Environmental Sciences in the De-
partment of Aerospace and Mechanical Sciences, Mr. Socolow
is also a member of the Center for Environmental Studies of
the School of Engineering and Applied Sciences.

Transatlantic Social History

JOHN MALCOLM BRINNIN, The Swag of the Grand
Saloon: A Social History of the North Atlantic, New
York, Delacorte, 1972, $15.00.

Steamships and their histories have been John Brin-
nin's compulsive interest since the days of his youth
in Halifax—"just by noting which of the regular liners
from Liverpool or Boston was berthed at Pier Nine I
could tell what day of the week it was"—and now that
he lives in Boston and Duxbury he continues to exult in
"the sounds and smells of the Atlantic Ocean." When
I first heard this book was in preparation, about five
years ago, a New York editor described it as a history
of the Cunard Line, but clearly Brinnin had something
more ambitious in mind. He has delivered a portman-
teau of a book, not just the story of Samuel Cunard, a
fellow Nova Scotian, and his discovery of the profits
to be made in the Great Circle route but a social history
of transatlantic traffic from the sailing of the James
Monroe in 1818 (424 tons, three masts, eight passen-
gers, a 28-day crossing) to the launching of the Queen
Elizabeth 2 in 1968 (65,683 tons, 110,000 shaft horse-
power, cabins for 1700, a 5-day crossing).

Determined to avoid dull economic and engineering
details, he concentrated his research on two aspects of
"the human element—the day-to-day experience of the
millions of people who had crossed the ocean, along
with the idea that the passenger ship . . . was a kind of
traveling metaphor reflecting society and indicating the
nature of social change." Since Brinnin is a biographer
and a poet as well as historian, he knows how to blend
the close-up and the long-shot. His intimate graphic
details contrast 19th-century hazards (live-stock on the
decks of primitive packet steamers, casket-sized cabins,
passengers comatose with sea-sickness, steerage a dungen
t of fetid odors) with 20th-century luxuries (gour-
met chefs, tapestried lounges, air-conditioned cabins,
dramamine and stabilizers, one-class ships). Rather than
tell us, he shows us what made a ship famous in its
day. The Great Western, launched in 1837, sported not
only a 75-foot grand saloon opulent-yet art but "a
newly invented system of belts allowing for communi-
cation between every cabin and the stewards' rooms."
The Blue Riband Mauretania, sister-ship of the ill-fated
Lusitania, was "a grand hotel with engines"—French
walnut staircase, Louis XVI library, Old English Veran-
dous Cafe, Francois I dining room. The beloved Queen
Mary charmed its passengers in spite of an interior de-
sign that suggested early Leicester Square—"miles of
linoleum that glistened like a low-grade fever, acres of
laminated surfaces," panels of "carefully split wood
that put huge Korschach blots on every wall. The sleek
United States, "a kind of eagle among birds of
paradise" whom Brinnin still mourns, had the "func-
tional grace and minimal trappings of a clipper; huge
tear-shaped funnels sampan-topped; a cleanliness of line
and cool shine of surface that set her apart."

The long-shot in Brinnin's history is equally impres-
sive. As he charts the growth of passenger ships from
paddle-wheelers-cum-sails to iron hulls to turbine en-
gines to screw propellers, he draws parallels in the so-
cial, economic, and esthetic changes in American and
English life. The immigrants' steerage and the crew's
 cramped quarters, "rank enough to turn the stomach
of a camel," eventually gave way, as society became more
democratic, to "tourist third" and hygienic amenities.
Steampower meant competition, and competition meant
money. The Cunard Line was challenged by the
White Star Line, the Norddeutscher Lloyd Company,
the Compagnie Generale Transatlantique. The clamor
for speed was replaced by such a concentration on com-
fort and size that Willard Francis Gibbs, designer of
the United States, defined a superliner as "the equiva-
 lent of a large cantilever bridge covered with steel
plates, containing a power plant that could light any of
our large cities, with a first-class luxury hotel on top."
And then came the cruise ships—"the triumph of the
abominable." One must read Brinnin whole to get the
beauty of his scorn.

Few books please all men, but here there is so much
intriguing data, such control of material, and especially
so keen a sense of humor, even whimsy, that this history
in addition to all else becomes a volume to wander in.
We can refresh our memory of the fate of the Titanic,
the torpedoing of the Lusitania, the first appearance of
the Beringia, the collision of the Stockholm and the
 Andrea Doria. We can hear about Sarah Bernhardt's
saving the life of a passenger aboard the battered old
L'A merique only to discover, to her dismay, it was the
widow of President Lincoln. Or better yet, we can re-
member for all time the American lady who, on her way
back to the cruise ship from an excursion to Rulbek, was
heard to say, "How does American Express find these
places?" A delicious book.

—RICHARD M. LUDWIG

Professor of English, Mr. Ludwig teaches courses in Ameri-
can literature. Although known to get sea-sick in damp
glass, he has long been an enthusiast of ocean travel.