

THE KEY REPORTER

36th Triennial Council Approves Two New Chapters, Elects Joan Ferrante and Charles Blitzer

Meeting October 17–20 in Washington, D.C., the 36th triennial Council, the legislative body of Phi Beta Kappa, voted to establish new chapters at Ursinus College and Wittenberg University, bringing the total to 242. The Council also elected officers for the 1991–94 triennium: Joan M. Ferrante, professor of English and comparative literature at Columbia University, is the new president, and Charles Blitzer, director of the Woodrow Wilson International Center for Scholars in Washington, D.C., is the new vice president.

Eight senators at large and four district senators were elected for six-year terms. New senators are Gerald L. Alexanderson, Michael and Elizabeth Valeriote Professor of Science, Santa Clara University (Western District);

Vartan Gregorian, president, Brown University; David Levering Lewis, Martin Luther King, Jr., Professor of History, Rutgers University; James P. Lusardi, Francis A. March Professor of English, Lafayette College (Middle Atlantic District); Helen F. North, Centennial Professor of Classics. Swarthmore College; Arnold S. Relman, professor of medicine at Harvard Medical School, senior physician at Brigham and Women's Hospital, and former editor of The New England Journal of Medicine; and Catharine R. Stimpson, University Professor, dean of the graduate school and vice provost for graduate education, Rutgers University.

Senators elected to new six-year terms are Joan M. Ferrante; Virginia R. Ferris, professor of entomology, Purdue University (East Central District); Neil Harris, Preston and Sterling Morton Professor of History, University of Chicago; Donald S. Lamm, president and chairman, W.W. Norton and Company, Inc.; and Judith Lynn Sebesta, professor and director of classics, University of South Dakota (North Central District).

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The new leaders of the Society, President Joan M. Ferrante and Vice President Charles Blitzer, are pictured at the triennial Council banquet at the Mayflower Hotel, Washington, D.C., in October 1991.

ALTICK, TUFTE, AND DEGLER WIN PHI BETA KAPPA'S 1991 BOOK PRIZES

Three authors of new books that were cited for their outstanding contributions to humanistic learning received the Phi Beta Kappa book prizes at the annual Senate banquet at the Embassy Row Hotel in Washington, D.C., on December 6, 1991.

Richard D. Altick, Regents' Professor Emeritus of English at Ohio State University, received the Christian Gauss Award for *The Presence of the Present: Topics of the Day in the Victorian Novel.* Peter John Givler, director of the Ohio State University Press, which published Altick's book, also was present at the banquet. The Gauss Award, named for the Princeton University scholar and dean who was also a president of Phi Beta Kappa, was established in 1950 to recognize outstanding books in the field of literary scholarship or criticism.

In presenting the award, Gauss Award Committee chairman Clyde Ryals, professor of English at Duke University, said that Altick's book uncovers various then-current topics that formed parts of the matrix of Victorian novels. The book reveals to what degree the novel was indeed a popular type of literature and shows bow it cannot be appreciated without some knowledge of the topical events and concerns treated in them. Ranging over religious controversy, various amusements and entertainments, crime, modes of dress-practically everything that made up daily life in Victorian England—the study examines how all these matters are incorporated by a Dickens or a Trollope into their fiction. In doing this, the book provides nothing less than a history of the evolution of the Victorian novel from the Scott romantic and the Bulwer-Lytton silver-fork novels of the 1820s and '30s to the realistic fiction of Dickens and George Eliot a few decades later.

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TRIENNIAL COUNCIL

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Newly elected to the Nominating Committee are Anna J. Coble, assistant professor of physics and biophysics. Howard University; Kenneth M. Greene, retired secretary of the Society; Catherine S. Sims, dean emeritus and professor of history emeritus. Sweet Briar College; and Helen H. Vendler, Porter University Professor, Harvard University.

The Council also approved extending the vote on chartering new chapters to all chartered associations.

OTHER HIGHLIGHTS OF THE COUNCIL

On October 17 the Council participants attended a reception at the George Washington University, co-

hosted by area chapters and the alumni association of Washington, D.C. At that time Catherine S. Sims, a past president of the Society, paid warm tributes to Kenneth M. Greene. who retired in 1989 as secretary of the Society, and to Frances Robb, who began work on the Society's staff in the 1950s, when the headquarters was in Williamsburg, Virginia, and retired in October 1991 following the Council meetings.

On October 18 John Hope Law School at Duke University, meeting. received the fourth annual Phi Beta Kappa Associates Award at a reception hosted by the Associates at the National Archives and timed to coincide with the Associates' annual meeting. Franklin's remarks in the Rotunda of the Archives appear on page 5.

At the banquet on October 19 in the Mayflower Hotel, which was headquarters for the Council, Leon Lederman received the first Sidney Hook Award and delivered an address on science education, science, and American culture (see page 9). Lederman is Frank L. Sulzburger Professor of Physics, University of Chicago, and winner of the Nobel Prize in physics for 1988. The triennial Hook Award is a \$5,000 cash prize named in honor of the late philosopher and educator. The award recognizes a scholar for distinguished undergraduate teaching, research, and leadership in the cause of liberal arts education.

RESOLUTIONS ON Public Education

On the closing day of the Council, several resolutions were passed. First, the delegates expressed "grave concern over budgetary reductions affecting many institutions of higher learning in the United States" and endorsed the activities of local chapters and associations "in reminding responsible officials of the central role of liberal arts and sciences in American culture "

Then the delegates, noting that the 1988 Council had approved a resolution on improved educational standards and that the January 1991 conference in Williamsburg, Virginia, had discussed a number of potential programs to address that resolution. resolved "that the Senate give assist-



Franklin, James B. Duke Pro- Retiring two-term & BK senators Hazel E. Barnes, left, and fessor Emeritus of History and Norman F. Ramsey are pictured with retiring three-term professor of legal history in the PBK senator Catherine S. Sims at their last Council

ance as appropriate to chapters and associations which propose innovative and effective programs designed to improve the quality of public education.'

In a meeting immediately preceding the Council, the Phi Beta Kappa Senate had addressed the same issue and had recommended that the Society "should continue its support for academic excellence in the ways it has heretofore, and furthermore should address problems in the present state of American education by means of cooperative efforts like those arising out of the Williamsburg conference.' The Senate mentioned several practical steps that the Williamsburg conferees had defined:

that "partnerships" between schools and colleges be established with support from the departments of education in the various states; that Phi Beta Kappa chapters should support nonprofit educational agencies in

the state and offer their members as "resource" persons; that local schools and especially the schoolteachers could be involved in Visiting Scholar visits: and that the National Science Foundation and National Endowment for the Humanities Younger Scholar programs should be vigorously supported by the local chapters and associations.

OTHER COUNCIL RESOLUTIONS

The Council also passed resolutions of appreciation to Kenneth M. Greene. for 15 years of "superb service" to the Society as secretary, and to Frances Robb, for 40 years of "extraordinary devotion to the Society" as a member of the staff.

Special tributes also were voted to

the six senators who retired at the end of this Council:

- Three-term senators Catherine S. Sims (president, 1982-85), "for a record of devotion to the Society and its goal of excellence that is virtually unparalleled in the organization's long and honorable history"; and J.D. Williams, who "has few peers in his grasp of Phi Beta Kappa's unique mission in American higher education."
- Two-term senators Hazel E. Barnes, who "rendered the Society distinguished service as Chair of its Visiting Scholar Program committee"; Robert A. Fowkes, who

"rendered long and unfaltering

leadership to the Senate's Committee on Associations": and Norman F. Ramsey (president, 1985-88), whose "leadership, wise counsel, and interna- Robert A. Fowkes tional



renown" considerably strengthened the Society.

 One-term senator Carole O. Brown, who has moved from the region she represented but "continues to render distinguished service to the Society as a member of the Committee on Qualifications."

The Council also paid tribute to Darwin T. Turner, who died in February 1991, just before completing his first term on the Phi Beta Kappa Senate.

BOOK AWARDS

CONTINUED FROM PAGE 1

Edward R. Tufte, who teaches statistics, graphic design, and political economy at Yale University, won the Science Award for *Envisioning Information*, published by Graphics Press, which he founded. This award was established in 1959 to encourage literate and scholarly interpretations by scientists of the physical and biological sciences and mathematics.

Michael Robinson, director of the National Zoological Park, chaired the Science Award Committee. In presenting the prize, he said:

Edward R. Tufte's previous book The Visual Display of Quantitative Information is an invaluable resource for everyone concerned with illustrating data of all kinds. It is to be found on the bookshelves of information disseminators ranging from research scientists, through museum directors, to politicians and even to zoo directors. This new book matches the old in its usefulness to us all, but reaches new beights in elegance and sensibility. It is slightly unexpected, perhaps even paradoxical, that such an aesthetically skillful exponent of the use of images should also be so marvelously literate. In really effective communication, words and images must blend barmoniously, but they seldom seem to do so. Few combine both skills as effectively as this author and this book. Furthermore, to quote one member of our committee: "It is a book lovely in its own right."

Carl N. Degler, Margaret Byrne Professor of American History Emeritus at Stanford University, won the Ralph Waldo Emerson Award for In Search of Human Nature: The Decline and Revival of Darwinism in American



Three-term ΦBK senator J.D. Williams and long-time ΦBK staff member Frances Robb pose together at their last Council meeting before both retired in October 1991.





Richard D. Altick

Edward R. Tufte

Carl N. Degler

Preface

(Excerpt from In Search of Human Nature: The Decline and Revival of Darwinism in American Social Thought, pp. vii-ix, by Carl N. Degler. Copyright 1991 by Carl N. Degler. Reprinted by permission of Oxford University Press.)

human nature—social scientists—made the momentous shift from believing that biology explained some human actions to seeing culture or human experience—history, if you will—as the primary if not the sole source of the differential behavior of human beings. What kinds of evidence and arguments were used to bring that shift in outlook, who made them, and why, are among the questions I seek to answer in the first part of the book. More is involved, of course, than identifying and explicating the crucial ideas or even the advocates of those ideas. As in any study of the acceptance of a new paradigm or way of thinking, the crucial historical question is why did others accept and then begin to work within the new dispensation that some innovative leaders were propounding? Why did so many repudiate the traditional in favor of the novel?

... The main impetus came from the wish to establish a social order in which innate and immutable forces of biology played no role in accounting for the behavior of social groups. Individuals certainly differed in ability and achievement, but those differences derived from their individual inheritances, not from the biology of the social group to which they may have belonged. To the proponents of culture the goal was the elimination of nativity, race, and sex, and any other biologically based characteristic that might serve as an obstacle to an individual's self-realization. . . .

Today, in the thinking of citizens and social scientists alike the deeply held assumption is that culture has severed for good the linkage between human behavior and biology. The conviction is that human beings in their social behavior, alone among animals, have succeeded in escaping biology. The irony is heavy here. For that belief is accompanied by another deeply held conviction: that human beings, like all other living things, are products of the evolution that Charles Darwin explained with his theory of natural selection. The irony is almost palpable inasmuch as Darwin entertained no doubt that behavior was as integral a part of human evolution as bodily shape. And that is where Book III enters. It seeks to tell the story of how biological explanations have begun to return to social science. This return of biology stems from several things, among which is a renewed recognition of the pertinence of Darwinian evolutionary theory, and the apparent relevance of an explosion of knowledge about animal behavior to the search for human nature.

It is important to recognize that this "return of biology" is not simply a revival of repudiated ideas, like racism, sexism, or eugenics. The new evolutionary approach to social science has no more place for them than has the currently dominant cultural interpretation. Nor is "the return" an attempt to order society according to hierarchies or other normative outlooks. Social Darwinism was definitely killed, not merely scotched; the story told here of the return of biology does not resuscitate Herbert Spencer. Rather, the true aim of those social scientists who advocate a "return" is to place, once again, the study of human nature within evolution, to ask how human beings fit into that framework which Darwin laid down over a century ago and which very few social scientists consciously repudiate—except when the behavior of human beings is included in it.

Introduction

Social Thought, published by Oxford University Press. This award was established in 1960 to honor "outstanding studies of the intellectual and cultural condition of man."

In presenting the prize, the chairman of the Emerson Award Committee, David G. Roskies, professor of Jewish literature at the Jewish Theological Seminary of America in New York, commented:

The theme of the book, an outstanding contribution to the field of intellectual history, is that Darwin Lives. Thus far, according to Degler, be has lived three lives. First, Darwin discovered the concept of nature as a powerful and ever-evolving influence on buman thought and behavior. Then, a major paradigm shift occurred when Darwin's biological imperative with its emphasis on heredity and race was challenged in the first decades of the present century by Franz Boas and his disciples, who replaced it with the concept of culture. Finally, in the aftermath of the Second World War, a movement in the social sciences back to biology has given Darwin a new lease on life. At every step in the 120-year odyssey of Darwinian thought Degler reveals the ideological forces at work that weigh for or against the master metaphors of "nature" and "culture." Social scientists are themselves only human, after all, and even ideas grounded in scientific inquiry are necessarily shaped by ideology.

But here's the catch: Rather than add his voice to the choir of radical relativists, Degler shows how one of the greatest minds of the 19th century can and indeed should be rehabilitated on the eve of the 21st. And this is because, after all the dust has settled on the nature vs. nurture debate, it comes down to whether or not the human species occupies a rightful place in the natural world.

Each winner received \$2,500. Brief excerpts from each book appear on pages 3 and 4.

The 1992 Phi Beta Kappa book awards are open to qualified books published in the United States between May 1, 1991, and April 30, 1992. Entries must be submitted, preferably by the publishers, by April 30, 1992. Inquiries and entries should be addressed to the appropriate award committee at 1811 Q Street, N.W., Washington, DC 20009.

(Excerpt from Envisioning Information, p. 9, by Edward R. Tufte. Copyright 1990 by Edward R. Tufte. Reprinted by permission of Graphics Press.)

The world is complex, dynamic, multidimensional; the paper is static, flat. How are we to represent the rich visual world of experience and measurement on mere flatland?

This book celebrates escapes from flatland, rendering several hundred superb displays of complex data. Revealed here are design strategies for enhancing the dimensionality and density of portrayals of information—techniques exemplified in maps, the manuscripts of Galileo, timetables, notation describing dance movements, aerial photographs, the Vietnam Veterans Memorial, electrocardiograms, drawings of Calder and Klee, computer visualizations, and a textbook of Euclid's geometry.

Our investigation yields general principles that have specific visual consequences, governing the design, editing, analysis, and critique of data representations. These principles help to identify and to explain design excellence—why some displays are better than others.

Charts, diagrams, graphs, tables, guides, instructions, directories, and maps comprise an enormous accumulation of material. Once described by Philip Morrison as "cognitive art," it embodies tens of trillions of images created and multiplied the world over every year. Despite the beauty and utility of the best work, design of information has engaged little critical or aesthetic notice: there is no Museum of Cognitive Art. This book could serve as a partial catalog for such a collection. . . .

To envision information—and what bright and splendid visions can result—is to work at the intersection of image, word, number, art. The instruments are those of writing and typography, of managing large data sets and statistical analysis, of line and layout and color. And the standards of quality are those derived from visual principles that tell us how to put the right mark in the right place.

Introduction

(Excerpt from The Presence of the Present: Topics of the Day in the Victorian Novel, pp. 1-3, by Richard D. Altick. Copyright 1991 by Richard D. Altick. Reprinted by permission of Ohio State University Press.)

On the very first page of the very first issue of *Punch*, dated 17 July 1841, its editors announced the policy that was to govern every word and picture in their weekly paper: "*Punch*... makes the most of the present, regardless of the past or future." As things turned out, this purpose reached far beyond the precincts of comic journalism: it was the spirit that dominated Victorian fiction as well. Novelists, too, sought to make the most of the present.

This book explores the effect which that single aspect of realistic technique had upon the Victorian novel, from *Pickwick Papers* to Trollope's last novels and *The Mayor of Casterbridge*. The experiences of everyday life in a rapidly changing world and a sprinkling of large events provided novelists with the materials that would most satisfy their readers' insatiable interest in the contemporary scene and at the same time authenticate a novel's characters and settings, ensuring the ready imaginative assent on the part of readers that every writer of fiction, whether a romancer, a fantasist, or a naturalist, aspires to achieve. . . .

There is no concise, ready-made term that exactly fits the materials from which novelists create the effect of contemporaneity. . . . I have . . . chosen "topicalities," which . . . in the strict sense are references to people, events, or places that were present in the public consciousness, usually but not always as news items at the time a novel was published or within recent memory. The word as I use it also includes what might be called physical topicalities—objects and scenes that were new presences in the contemporary view, the visible results of change. It covers, therefore, all the details of everyday life and knowledge that were characteristic of the Victorian scene.

Taken all together, these events and objects comprised what can most conveniently be called time-specific details, which are identifiably associated with a given time, in contrast to time-neutral details, which belong to no such specific time. Thus, details of setting and accessories of everyday living, still familiar in Victorian days, that might just as easily have been found in Fielding's novels, belong to the latter category and do not constitute materials that are distinctively Victorian, as time-specific ones do.

UNEQUAL PROTECTIONS UNDER THE BILL OF RIGHTS IN THE EARLY DAYS

BY IOHN HOPF FRANKLIN

THE BILL OF RIGHTS was no afterthought. Virtually every provision in the group of resolutions that became the Bill of Rights received considerable attention at the Constitutional Convention in 1787. Indeed, matters that later were incorporated into the first ten amendments to the Constitution had been debated before and during the convention. They did not become a part of the original Constitution for a variety of reasons. Some members of the convention agreed with Alexander Hamilton that a bill of rights was more than unnecessary. "Why declare that things shall not be done which there is no power [in Congress] to do?" Others supported James Wilson in his view that any attempt to include a bill of rights would be impracticable. "Enumerate all the rights of men?" Wilson asked. "I am sure that no gentlemen in the late convention would have attempted such a thing." Wilson went on to argue that the Constitution was not a body of fundamental law, but a code of reference, providing for a framework of government. Still others had no objection to a bill of rights, but thought it would be catastrophic if an attempt was made to enumerate them and some rights were omitted.

One suspects, moreover, that some of the founding fathers steadfastly opposed the Bill of Rights because they did not believe in freedom of religion

or speech, or speedy jury trials for the accused, or other practices that, from their point of view, were too radical to countenance. To include such matters in the original Constitution would unleash a debate that would seriously jeopardize the ratification of the Constitution itself. They had hoped that the Constitution would be ratified without reference to such matters. And if it should prove impossible to do that, such thorny questions should be postponed at least until after the Constitution was ratified.

Congress that met after the bis address.

new government was inaugurated might consider these questions. There were those who agreed with James Wilson that the Constitution was a code of reference, but they thought the Bill of Rights went too far in dealing with matters of detail. Excessive bail, cruel and unusual punishment, and trial by jury in cases exceeding twenty dollars, they argued, were matters best handled by the legislative branch as it sought to carry out the mandates set forth in the Constitution itself. In any case, the general argument that prevailed in 1787 was that the Bill of Rights had no place in the Constitution itself and should be kept out at all possible costs.

But the Constitution itself did contain matters of detail, such as provisions regarding the slave trade and fugitive slaves, and those prohibiting bills of attainder and ex post facto laws. It appears that consistency was not so much the goal as was the belief that if a detail was best handled in the Constitution, then that is where it would be handled.

Arguments, however closely reasoned and eloquent, against ever incorporating the Bill of Rights in the Constitution did not prevail. And many who voted for the ratification of the Constitution in 1787 and 1788 did so with the clear understanding that the Bill of Rights would be added to the Constitution and would be at the

Triennial Council delegates and guests view the Bill of when the arguments for a bill Some supporters of the Con- Rights on display in the National Archives at the Associ- of rights were being formustitution suggested that the ates Award reception where John Hope Franklin delivered lated, it was reasonable for Al-

top of the agenda with the convening of the First Congress in 1789.

From our vantage point it hardly seems possible that the framers of the Constitution could have seriously entertained the possibility of omitting the Bill of Rights from the Constitution altogether. One can only be grateful to Sam Adams, Elbridge Gerry, Patrick Henry, and the others who

If the Bill of Rights celebrated and protected the right of the individual to enjoy certain fundamental privileges that had been a part of the legacy of free men since the signing of Magna Carta in 1215, it was somewhat fastidious in its protection of the rights of certain individuals and not of others.

were sufficiently intransigent and strong in their opposition to the Constitution as it had been written that its proponents agreed to mollify them by promising to include the Bill of Rights after the Constitution was ratified.

If the Bill of Rights celebrated and protected the right of the individual to enjoy certain fundamental privileges that had been a part of the legacy of free men since the signing of Magna Carta in 1215, it was somewhat fastidious in its protection of the rights of certain individuals and not of others. I do not know what Richard Allen, a black Philadelphian, thought of the First Amendment that ostensibly guar-

> anteed freedom of religion. At best he must have been skeptical of it or even have wondered whether it was worth the paper on which it was written when he was dragged from his knees at St. George's Methodist Church in Philadelphia in November 1787, simply because he was using the front-row pew instead of a rear-row pew in the balcony of the church.

Because this incident occurred two months after the United States Constitution was signed by its framers and just CONTINUED FROM PAGE 5

len to conclude that the grand fight to include a bill of rights in the Constitution had nothing whatever to do with the free exercise of *bis* religion. The only thing he was free to do was to leave St. George's Church, which he promptly did, and worship in a church of his own making, which he also promptly did.

The experience of Richard Allen and other blacks similarly situated as worshipers in predominantly white churches raises other questions regarding the extent to which the framers of the Constitution and, indeed, the white worshipers were truly committed to the free exercise of religion. If religious brotherhood was to be maintained in a setting characterized by segregation and discrimination, the question inevitably arises concerning the consistency, integrity, and commitment of those who claimed that they stood for the free exercise of religion.

Had they so chosen, the proponents of the new Constitution could not have had a better example of the need to protect freedom of religion than its denial to Allen and his confreres by the trustees of St. George's Church. They chose not to. And if they could countenance discrimination against worshipers on the basis of race, it would be easy and convenient to deny religious freedom to those whose beliefs were regarded as unorthodox or even heretical. It was easy to protect religious freedom among white orthodox believers. It was obviously not so easy to protect the religious freedom of blacks and of people holding strange, unpopular religious views. All too often the Bill of Rights did not help such persons or groups. As the First Amendment said, "Congress shall make no law respecting the establishment of religion, or prohibiting the free exercise thereof," but neither Congress nor the states provided relief against those who sought to make their own religious practices exclusive.

That First Congress, which passed the resolution forbidding Congress to interfere with the free exercise of religion and guaranteed freedom of speech, the press, and assembly, also passed a Second Amendment that remains controversial to this day. It says, "A well regulated militia, being necessary to the security of a free State, the right of the people to keep and bear

arms, shall not be infringed." A careful, casual, even reckless reading of the Second Amendment reveals that it deals exclusively with the establishment and maintenance of the militia. It has absolutely nothing to do with a private individual's owning a Saturday night special or an AK-47, claims to the contrary notwithstanding of the National Rifle Association and its life members, including George Herbert Walker Bush.

Perhaps the most fascinating aspect of the passage of this Second Amendment is that, once it was ratified, Congress proceeded to exclude blacks from whatever it was that it was protecting in that amendment. In an act establishing a "Uniform Militia Throughout the United States," the Congress said, "Each and Every free able-bodied white male citizen of the respective states . . . who is or shall be of the age of eighteen years and under the age of forty-five . . . shall be . . . enrolled in the Militia. . . ." In a word, the act told the 5,000 blacks who had

Every free black person was constantly at risk of losing his or her freedom, for every white person assumed that if a person was black, that person was a slave.

seen service in the War for Independence—all or most of whom had been freed after the war—that their services were no longer needed, and that once independence had been achieved with their help, they were not worthy to serve in the militia of the United States. This declaration not only was lacking in grace, it also was lacking in gratitude.

The "white only" militia law repudiated the policy reluctantly accepted by George Washington that blacks could serve in the armed forces of the United States, and embraced the view that the protective arm of the United States must be white in order to be effective. No exception was made for free blacks, who numbered some 59,000 in 1790 and who were as entitled under the Constitution as any other citizens to participate in the military activities and in the political process of the United States. Such a policy and such a view launched this country on a systematic program of racial bigotry, carefully conceived and executed, that would in the future mar

race relations in war as well as in peace.

The Constitution and the Fugitive Slave Laws of 1793 and 1850 gave ample protection to slaveowners in their efforts to recover runaway slaves. Congress had exclusive jurisdiction, moreover, in all procedural and other matters regarding their recovery, as Justice Joseph Story pointed out in Prigg v. Pennsylvania in 1842. One would have thought that the Bill of Rights-either the Fifth, Sixth, or Seventh Amendment-would have extended some protection, some due process, in the litigation growing out of contests over slaves who allegedly had run away. It is well to remember that there were always free blacks in the United States, and the number grew steadily with every passing decade before the Civil War. By 1860 there were about a half-million free blacks, divided almost evenly between the slave states and the free states. Every free black person was constantly at risk of losing his or her freedom, for every white person assumed that if a person was black, that person was a slave.

Current laws authorized every white to challenge any black whom the white person suspected of being a runaway. One need not dwell on the psychological headiness it gave to a white who had no slaves and had no reasonable chance of ever having any to challenge a black as a runaway, seize him, and deliver him to the authorities. It made the hapless white feel that he was part of the system.

Blacks-even in the free stateswho were accused of being fugitive slaves had no protection from false arrest or frivolous or erroneous accusations. If some white person in the North accused a black person of being a runaway, all the alleged owner or his agent had to do was to bring the so-called fugitive before any federal or state court and, upon proof of identity, the magistrate would turn him over to the owner or his agent. The Fifth Amendment, a central feature of the Bill of Rights, declared that no person could be deprived of life, liberty, or property without due process of law. Mere personal identification, in the absence of one word of defense or refutation on the part of the alleged fugitive, was hardly due process of

The Sixth Amendment provided that the accused shall enjoy the right

to a speedy and public trial by an impartial jury of the state, to be confronted by witnesses against him, to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense. The summary manner in which a magistrate accepted the declaration of an alleged owner that the person appearing before the magistrate was his property is a clear indication that the rights protected in the Sixth Amendment were not extended to blacks, whether they were actual runaways or merely unfortunate free blacks who happened to cross the path of a slaveowner or his agent looking for his runaway slave.

The Seventh Amendment provided that in suits at common law, where the value in controversy shall exceed twenty dollars, the right to trial by jury shall be preserved. Any slave was worth at least twenty dollars, and surely any alleged runaway would contest recapture. The controversy thus ensuing was one that should have guaranteed the accused a trial by jury. Yet this ancient and honorable practice, venerated and adhered to since medieval times, meant nothing in American courts of law where the accused was black and where his status as a fugitive slave or a free black person was yet to be established. There are no records, so far as I know, of an alleged slave's enjoying the rights ostensibly protected by the Seventh Amendment; and there are very few instances of a free black's enjoying those rights.

Samuel Bryan, a well-traveled Jamaican, had unusually good fortune in establishing his freedom, even without some of the protections provided

by the Bill of Rights. In 1837, after being taken up as a slave, he presented his case to Judge John J. Guion of the Criminal Court of Warren County, Mississippi: "The petition of Samuel Bryan a free man of Color now confined in custody of the Jailor of Warren Co. . . Miss., since the 5th day of June, 1836, without being charged with any crime that he has been informed of but is informed that he is confined as a runaway slave." Bryan's petithe King of Britain, and that he tober 1991.

was apprenticed to James Johnson, a carpenter, to learn the trade for five years. Johnson died, which ended the apprenticeship. Bryan then went by ship to New York, settled there, and became a citizen. He worked as an assistant cook on board ships sailing to ports such as Savannah and Charleston.

In April 1836 Bryan left New York aboard the Mary as assistant steward and arrived in New Orleans. He had his certificate of freedom on board. but it was in the belongings of his half-brother, with whom he had had a disagreement. He decided to return to New York by some other means, leaving behind his free papers. He began working on a ship up the Mississippi River, but when the captain discovered that Bryan had no certificate of claim to freedom, he had Bryan committed to jail as a runaway slave. Bryan requested and was granted a writ of habeas corpus so that he could appear before the court and establish his freedom. In court, one white witness swore that he had known Bryan in New York and in 1834 had sailed with him to Liverpool on the ship for which Bryan was second cook. He was regarded as a free man and no one had ever claimed him as a slave. Another white man sent an affidavit saying that he knew Bryan in New York, where he passed as a free man. After receiving the affidavit, Judge Guion discharged Bryan as a free man, but required him to pay the court costs. The ship's captain who turned Bryan in as a fugitive received a reward of six dollars, while Bryan, who was not a fugitive, had to pay the court costs.

Many other free blacks, whose claims to freedom were doubtless as valid as those of Bryan, had no such good luck. One by one, in Northern

tion then declared that he was John Hope Franklin and his wife, Aurelia, are flanked by born in Kingston, Jamaica, of retired Society secretary Kenneth M. Greene and his wife, free parents, the subjects of Anne, at the National Archives, Washington, D.C., in Oc- cestry, he had no African fore-

and Southern courts, these people were paraded before a magistrate and after a perfunctory hearing, with none of the protections of the Bill of Rights, were hustled off to a lifetime of service on a Southern plantation. It is obviously not possible to determine the numbers of the victims who were unable to defend themselves and consequently were sent into slavery. One can only say that unless the evidence and testimony were irrefutable, as in the case of Samuel Bryan, there was simply no chance to remain free if that was a just claim, or to become free if that is what a runaway hoped to do. With slaveholders and their agents combing the countryside from New Orleans to Boston in search of runaways, virtually every free person of color was in immediate danger of being taken up and delivered into slavery with no opportunity whatever to establish a valid claim to freedom.

Even in death a free black person was not protected by the provisions of the Bill of Rights, as the case of William Johnson shows. Johnson, a free Negro of Natchez, Mississippi, in the antebellum years, was a barber, real estate dealer, and money lender who amassed a fortune. He owned several valuable properties in Natchez as well as several plots of rural land. His social life was restricted, of course, because few blacks had the resources or interests that he had. Whites would patronize his barber shop and even borrow money from him, but would have nothing to do with him socially. For recreation, he frequently went to New Orleans on the same ship with some of his customers, but they avoided him en route and in the city. Indeed, some of them

> were fiercely jealous of his success; and that was his ultimate undoing.

In the late 1840s Johnson became embroiled in a dispute with one Baylor Winn over the accuracy of the boundary line that separated adjacent lands which they owned. Although the dispute was settled, with Johnson making concessions favorable to Winn, bad feelings remained between the two men. Some claimed that Winn was a free Negro, but he had always argued that, although he had some Indian anCONTINUED FROM PAGE 7

bears. He had voted, had married a white woman, and was generally accepted as a white person. One evening in 1851, while Johnson was returning to his home with two other blacks on horseback, he was shot from ambush. Before he died several hours later. Johnson said that he had been shot by Winn, and his two black companions also attested to Winn's guilt. Winn was tried three times, but each time his attorneys successfully argued that he was innocent. There were no competent witnesses, because those who claimed that Winn shot Johnson were of African descent and, under the laws of Mississippi, could not testify against a white person.

The irony is that under the Bill of Rights the accused was guaranteed a fair and speedy trial before a jury and, at the same time, was protected by state law from testimony against him by blacks. Meanwhile, Johnson was denied his life without due process of law, despite the Fifth Amendment, because in 1851 the protection did not extend to the state. Even if it had, neither the Constitution of the United States nor the laws of Mississippi gave credence to testimony given by a black person against a white man.

African Americans were not only sensitive to the rights to which they were entitled under the Constitution and did not enjoy, but they were also especially eager to argue that under the Second Amendment they were as entitled as anyone else to organize militias that would become a part of the American military establishment. And yet, just as the federal government had barred blacks from the militias in 1791, many states, acting as the federal government's agents in organizing the militia, excluded blacks from the state military units. In 1852 blacks requested the Massachusetts legislature to authorize the establishment of a Negro militia company, without success. Ten months later, in 1853, 65 blacks petitioned the legislature for a charter to establish an independent military company, again without result.

William J. Watkins, one of the black petitioners, then argued the case for black militiamen before the Massachusetts Legislative Committee on the Militia. He said that the petitioners were

among the most respectable men in the community. They are law-

GRENE TO GIVE ROMANELL LECTURES IN CALIFORNIA; MARCUS APPOINTED 1992–93 ROMANELL PROFESSOR

The 1991–92 Romanell–Phi Beta Kappa Professor of Philosophy, Marjorie Glicksman Grene, will present three lectures titled "Beyond Empiricism" at the University of California, Davis, on February 6, 11, and 20. The individual lecture titles are "Rethinking the Transcendental Analytic," "Beyond Empiricism?" and "Being in the World."

Grene is professor of philosophy

emerita at the Davis campus and has held an appointment as University Distinguished Professor at Virginia Polytechnic Institute and State University since 1988. The Romanell professorship, which was established in 1984, carries a stipend of \$6,000.

The 1992–93 Romanell professorship has been awarded to Ruth Barcan Marcus, Reuben Post Halleck Professor of Philosophy, Yale University.

abiding, tax-paying, liberty-loving, native-born American citizens; men who love their country despite its beinous inequities.... The very fact that some of those who have signed this petition are descendants of those who faced the cannon's mouth, and quaked not when it bellowed forth its dreadful thunders, who quailed not beneath its lurid lightnings, and yet are denied rights and privileges accorded to the descendants of those who shot down the brave patriots of the Revolution, should be enough to cause the blood to boil within you and cause "borror upon borror's head accumulate."

In 1859 the legislature passed a bill authorizing blacks to join the state militia, but Governor N.P. Banks vetoed it and his veto was sustained. Thus, as far as serving in the militia was concerned, Massachusetts blacks were no better off at the middle of the century than they had been at the beginning.

If any final declaration was needed to show that blacks in the United States were not protected either by the Constitution itself or by its first 10 amendments—the Bill of Rights—the chief justice of the United States, Roger Brooke Taney, provided that declaration in his decision in 1857 in the Dred Scott case. Dred Scott, a slave in Missouri who had traveled with his owner to a free state and a free territory, sued for his freedom on the ground that his residence on free soil had emancipated him. When the case came to the Supreme Court, Taney rejected Scott's claim. He said that an owner's slave was property protected by the Constitution whether the slave resided in a so-called slave state or a so-called free state or free territory. In any case, a black man was not a citizen and therefore had no standing in a court of law.

Speaking specifically about the status of blacks, slave and free, at the time of the Constitution and in the early days of the Republic, the chief justice said,

It is difficult at this day [1857] to realize the state of public opinion in relation to that unfortunate race. which prevailed in the civilized and enlightened portions of the world at the time of the Declaration of Independence and when the Constitution of the United States was framed and adopted. . . . They had for more than a century before been regarded as beings of an inferior order, and altogether unfit to associate with the white race, either in social or political relations; and so far inferior, that they had no rights which the white man was bound to respect. . . .

Regarding the status of African Americans at the time of the formation of the Constitution and the Bill of Rights, Taney unfortunately rendered an accurate reading. There can be no doubt that he was more than pleased to provide such a reading, but it was the framers of the Constitution and the authors of the Bill of Rights and the members of the First and Second Congresses who had made it easy for Taney and his contemporaries to exclude blacks from the protections of the Constitution. Unwittingly he provided much grist for people who, almost a century and a half later, continued to seek ways to exclude African Americans from the full enjoyment of the Constitution and the Bill of Rights.

This article is adapted from remarks at the National Archives Building in Washington, D.C., on October 18, 1991, when the author received the fourth annual Phi Beta Kappa Associates Award.

SCIENCE EDUCATION, SCIENCE, AND AMERICAN CULTURE

BY LEON M. LEDERMAN

AM INDEED HONORED to be the first Sidney Hook Memorial Award recipient. We were both New Yorkers. Professor Hook spent 45 years at New York University, I spent more than 33 years at Columbia. He then migrated to California and I to Chicago. I recall attending several of his lectures during our years of overlap.

My topic here concerns science education, science, and American culture. When we are born into this world, some wise person said, we are not handed a map, nor do we get instructions as to how the world operates. As children, we ask questions, we demand answers from our beleaguered parents; it is important somehow for a human child to know these things—about the lightbulb, or the clouds, or the caterpillar on the leaf, or the dexterity of the child's own small fingers.

What we know of our world has been achieved by a prolongation of that innate, primitive curiosity, by the restless probing of the human mind, by prodigious labor, by brilliant insight and imaginative measurement.

Let me try to give you a status report on what we have learned of our world. If it sounds like a rewrite of Genesis, please note that there is plenty of room for divine intervention.

In the beginning there was a void—a curious form of vacuum, a nothingness, neither time nor space, neither stars nor planets-neither rocks nor trees, neither animals nor human beings. There were, however, in place the laws of nature, or so we believe. And these laws dictated that the curious vacuum would explode, and in this initial incandescence there were created space, time, and a hot plasma of primordial particles. As the universe cooled and grew less dense, particles coagulated and forces differentiated. Pristine symmetry gave way to evolving complexity. Protons and neutrons formed, then nuclei and atoms and huge clouds of dust, which, still expanding, condensed locally here and there to form the galaxies and the stars and the planets.

On one planet—this one, a most ordinary planet, following precise mathematics, orbiting a mediocre star, one speck on the spiral arm of a standard galaxy—turbulent landmasses and more turbulent oceans organized themselves, and out of the oceans an ooze of organic molecules reacted and built up the protein, and eventually life began. Plants and animals evolved out of simple organisms, and, in time, human beings arrived.

This glimpse of our world is the result of the collaborative efforts of many minds, versed in the disciplines of astrophysics, mathematics, cosmology, particle science, planetary geology, oceanography, molecular biology, evolutionary paleontology, and much



Sidney Hook Award winner Leon M. Lederman poses with his wife, Ellen, at the Mayflower Hotel before delivering the first Hook lecture at the triennial Council banquet in October 1991.

more, conspired to form the brief scientific view of Genesis I presented—a still-evolving intellectual edifice of towering dimensions. This science—the art of questioning, of discovering, of wonder and imagination—is today denied to millions of American children by an educational establishment that is still strongly constrained by the belief that the children are unwilling to learn and incapable of mastering the essentials of difficult subjects.

In 1983 a report on the state of education in the schools of the United States, A Nation at Risk, detailed the failure of U.S. schools to educate, in lurid metaphors. In the ensuing years many (someone counted about 300) additional reports came to more or less the same conclusion.

By any standards one wants to set, Americans are not learning science. All too often what is taught as science is better not taught at all. All too often the mind-set against science and the fear of mathematics are solidly installed in grade school. All too often science can be skipped in high school and in most colleges. As for most American college students, the science requirement is a sad joke. When science is taught, it is too often taught only to college-bound prospective scientists. Any serious contact with the seminal scientific ideas can easily be avoided at most colleges.

We have a term for this condition. We call it scientific illiteracy. In a world where illiteracy, like hunger and disease and intolerance, is supposed to be disappearing, especially in the advanced, developed nations, the overwhelming illiteracy of the American public is bound to have disastrous consequences for the nation.

The issues have been listed many times in many places. They have to do with economics—yes, the work force must be increasingly capable of the kind of skills and critical thinking that require a firm grounding in mathematics and science. They have to do with democracy, as issues of absolutely devastating consequences to the future of society require citizens to have some grasp of science "savvy." (Here the issue is not to choose sides in technical debates but to appreciate when issues are debatable and to distinguish between science and pseudoscience.) They have to do with culture, with the participation of a much larger fraction of our citizenry in the wonder and awe of the emerging conceptions of the physical and biological universes. Not the least of these issues has to do with the failed educational infrastructure, and here I want to focus on our cities, where the failure is most apparent and least controversial.

Let me remind you that in 1954 the U.S. Supreme Court, in a landmark decision, *Brown* v. *Board of Education*, found that segregated education was unconstitutional because it was inherently unequal. In a bitter and often

SCIENCE EDUCATION

CONTINUED FROM PAGE 9

heart-rending book, Savage Inequities, Jonathan Kozol insists that a study of our inner cities clearly indicates how far the reality of public education is from the bold vision evoked by Brown v. Board of Education.

A major component of the failure of the educational system has to do with large urban school systems and poor rural areas. Some 25 cities share common problems: their predominantly minority, predominantly poor populations are overwhelmed by the problems of relatively weak family support structures, neglected buildings, crime, and drugs.

In large inner cities, the poverty level ranges between 40 and 70 percent. One child in eight, overall, goes hungry at least part of each month. Children arrive at school suffering from abuse, neglect, and lack of food and medical care. There are many programs designed to address these appalling statistics—the most notable of which is Head Start—but these programs touch less than 20 percent of the children who require intervention.

The ultimate tragedy is to have children arrive at the school, having overcome whatever obstacles their lives provide, from their bed to the schoolroom, only to discover that the teacher is merely using time. However, without great analyses, we know that if children arrive at school without hunger, without pain, freshly washed and combed, laughing and holding hands—they are indeed ready to learn.

A proper educational experience can stimulate the child, can open the door to the joy of the learning experience, can make the school a place to be, and can serve to break the deadly cycle that looms as the major problem in U.S. education in the 1990s: the cycle of failure and drop-out, unemployment and poverty, drugs and crime, teenage pregnancy and new candidates for the cycle. Either we face this issue head-on, or we write off the cities (as we have been doing) and we as a nation suffer the social, moral, political, and economic consequences of a permanent and growing underclass.

CHICAGO

Let me tell you about a "typical city." The population of Chicago is roughly half minority, but the Chicago

Public Schools are 88 percent black and Hispanic, 10 percent white, and 2 percent others. So much for Brown v. Board of Education. There are 410,000 students and 24,000 teachers; 60 percent of the students come from families that are below the poverty level, and 46 percent never finish high school. Chicago students score low on all national tests. Crime, drugs, unsafe streets, and decrepit school buildings complete the picture. President Reagan's secretary of education, William Bennett, called Chicago's school system the worst in the nation, and although it would be difficult to prove, there was no real argument. (Of course, there are excellent schools, superb teachers, and dedicated administrators in the Chicago Public Schools, but I am addressing the average situation.)

In 1988, as a result of a spontaneous citizens' protest on the poor state of education, Chicago enacted the most radical school reform in the nation: school-based management, all the way! There are now 540 corporations-called schools. Each is managed by a chief executive officer, called a principal, who is hired (and fired) by an elected local school council, which determines the educational quality of their school. Because the councils are made up of parents, teachers, and citizens living near the school, this is a true trial of the democratic solution.

It is in the context of this reform that a group of scientists, teachers, educators, and principals have organized a new entity to focus on the teachers, the Teachers' Academy of Mathematics and Science (TAMS). The structure of this not-for-profit entity was guided by a set of beliefs:

- 1. All children can learn, even poor children, even children with little parental support, even children who live in ghetto neighborhoods.
- 2. The teacher is the key to learning, but too often the teachers are not trained in the teaching of math and science and are themselves uncomfortable with these subjects.
- 3. Teachers can learn, and scientists (and other teachers) can help organize their learning.
- 4. In-service teachers must be trained in the newest techniques for delivering math and science. It will take too long to fix the educational bureaucracy, although ultimately that is what must be done.
 - 5. Teachers, armed with new tech-

niques and new self-confidence, can create a learning environment that will positively affect all Chicago Public School students from the underachiever to the most gifted.

- 6. The study of science, in the best of classrooms, stirs the imagination. The story can be in a frog, in a test-tube reaction, or in a photograph of the night sky. Any of these can be used to expose aspects of the awe, wonder, and beauty of the universe to naturally inquisitive young minds.
- 7. Mathematics and science education, when well led by teachers trained in "inquiry based" methods, tends to convert skeptics to scholars. Children go on to do much better in their communication skills.
- 8. The Teachers Academy can serve as a permanent support base for teachers, a place for fostering collegiality, for stimulating ongoing renewal of content, and for continuously enhancing familiarity with developments in educational technology, delivery methodologies, and their fellow teachers and enthusiastic scientists.
- 9. Parents, grandparents, local school council members must all become part of the process.

Although we are aware of the importance of family support, good health care, and safe streets for our children, awaiting a total solution is a prescription for inaction, so we are determined to act.

TAMS was organized through a council of presidents of the 14 universities and four-year colleges in or around Chicago. The council appoints a board of trustees that draws from the business community, the universities, the museums, Fermilab and Argonne National Laboratories, teachers, principals, the mayor's office, the governor's office, the teachers' union, the Urban League, the Hispanic organization, the local school councils, and the Chicago Public Schools.

The idea was to work with the teachers to vastly upgrade both their knowledge of science and math content and their ability to deliver this knowledge to children, making all allowances for the large ethnic variety of children and their special inner-city-induced problems.

We scoured the nation for ideas from the research in cognition and curriculum reform that has been coming out over the past decade. We searched for programs and successful interventions. We learned the buzz words: hands-on, activity-based. inquiry-method thinking, rather than rote learning, and don't forget play and fun-students doing more talking and less listening, working in groups, dealing with open-ended questions, nuturing their innate curiosity. Many such interventions were being tried out in Chicago, usually by scientists reaching out in their "spare" time at the University of Illinois in Chicago, at the University of Chicago, at the Illinois Institute of Technology (ITT). and at Fermilab.

STATUS

Supported by planning grants from the National Science Foundation (NSF) and the Department of Energy (DOE), we opened for business in vacant space on the IIT campus in September 1990.

In 1990 we signed agreements with 10 schools to enroll their in-service teachers in an intensive 16-week program. TAMS supplied the substitutes, and some 109 teachers completed the program. TAMS also held workshops and special studies and seminars for more than 1,100 teachers in this start-up year.

The program is expensive, and, in view of the severely constrained city and state budgets, the bulk of support must come from Washington, D.C., not Darkness and Confusion, but Desirous of Competence (we hope)—the only city in the world where the speed of sound exceeds the speed of light.

We have appealed for funds not only to DOE and NSF, but also to the Department of Education—all of which have leaders devoted to the improvement of U.S. education.

With the requested funds (and those we hope to raise locally) we can expand from 10 to 50 schools in 1992 and to 90 schools in 1993.

If it works in Chicago, it can work in Washington, D.C., in New York, Detroit, and some 25 other large urban school districts. Although we must understand more about how children learn, we know enough to begin. Although we need to refine our science and math curricula, there are programs that have been tested and that work. We must put them to use. Al-

though we are aware of the importance of family support, good health care, and safe streets for our children, awaiting a total solution is a prescription for inaction, so we are determined to act.

To my knowledge, this is the only action program that responds in scale to the president's romantic goal of being number one in education by the year 2000. For a cost of about \$1 billion, the federal government can leverage the efforts of enormous intellectual resources in all of the most troubled urban centers and extend its efforts to poor rural districts where technology is even more important.

Conclusion

If we are to keep our science healthy and our society optimistic, we need a qualitative adjustment of American culture: we need to elevate our appreciation for achievements in learning and thinking at least to the level of our appreciation for achievements in athletics and entertainment. We need a more rigorous ethical standard and a concern for the long term.

We need a sustained effort by thoughtful leaders of industry, finance, politics, and academe. And now that the cold war is over, we need to recognize that there is another important threat to our security closer to home: the sad state of modern America's culture.

We must convince the filmmakers, print media, and TV gatekeepers of the need to reform. Our films too often ignore the drama and excitement of science, or, worse, present ghoulish Strangeloves in white coats, stroking cats as they organize the destruction of the world. Print media can establish some balance in their coverage with science pages and guest columns by articulate scientists. And we have to get away from the dreary sitcoms and abysmal standards of commercial TV-this is the way the level of culture is set, and this is the way it can be changed. Every one of you can help. Without such a change, I fear that the great efforts made by so many will be smothered by the dead weight of what passes for modern American culture.

This article is adapted from the first Phi Beta Kappa Sidney Hook Memorial Prize Lecture, delivered at the triennial Council banquet, October 19, 1991, in Washington, D.C.

the American Scholar

Dublished quarterly by Phi Beta Kappa, The American Scholar explores ideas and controversies and assesses aspects of contemporary culture and intellectual life. Each issue presents articles on subjects of enduring interest by outstanding contemporary writers. The Spring issue, for example, features J.C. Furnas's "Why Johnny Needn't Read,' Christopher Clausen's "Dialogues with the Dead," and James Sloan Allen's "Educating Performers."



American Scholar editor Joseph Epstein, right, chats with **ΦBK** senator Donald S. Lamm at the Senate banquet in December 1991.

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RECOMMENDED READING

BOOK COMMITTEE

Humanities: Robert P. Sonkowsky, Jean Sudrann, Lawrence Willson
Social Sciences: Earl W. Count, Richard N. Current, Leonard W. Doob, Thomas
McNaugher, Madeline R. Robinton, Victoria Schuck, Anna J. Schwartz
Natural Sciences: Ronald Geballe, Russell B. Stevens

Russell B. Stevens

World on Fire: Saving an Endangered Earth. George J. Mitchell. Scribner's, 1991. \$22.50.

Imperiled Planet: Restoring Our Endangered Ecosystems. Edward Goldsmith, Nicholas Hilyard, Patrick McCully, and Peter Bunyard. MIT, 1990. \$39.95.

Fire & Ice: The Greenhouse Effect, Ozone Depletion & Nuclear Winter. David E. Fisher. Harper & Row, 1990. \$19.95.

Global Warming: Are We Entering the Greenhouse Century? Stephen H. Schneider. Sierra Club, 1989. \$18.95.

The Earth in Transition: Patterns and Processes of Biotic Impoverishment. Ed. by George M. Woodwell. Cambridge Univ., 1990. \$49.50.

Between Two Worlds: Science, the Environmental Movement and Policy Choice. Lynton Keith Caldwell. Cambridge Univ., 1990. \$44.50.

Biological Habitat Reconstruction. Ed. by G.P. Buckley. Belbaven, 1989. \$52.50.

This cluster of books represents what came to hand over the course of a month or two; doubtless a more diligent search would have disclosed 7, perhaps even 14, more. This sample underscores not only the profusion but the diversity of this burst of publication. The works by Mitchell, Fisher, and Schneider are easily within the grasp of the nonspecialist; those edited by Woodwell and Buckley are typical conference reports, which present rather technical summaries by specialists. The Goldsmith et al. volume features spectacular photography with accompanying text, in the National Geographic tradition. And Caldwell's text is best described as a series of thoughtful essays. By and large, each of the subtitles provides valid hints as to the nature and direction of the work in question.

Singly or in the aggregate, these

books testify to the sheer size and force of what is often called, for whatever variety of reasons, the "environmental movement." Whether the polemical flavor that permeates most such writing tends, on balance, to make it more or less effective is debatable—this reviewer fears it is the latter.

The Idea of Wilderness: Prehistory to the Age of Ecology. Max Oelschlaeger. Yale, 1991. \$29.95.

The Ends of the Earth: Perspectives on Modern Environmental History. Ed. by Donald Worster. Cambridge Univ., 1988. \$39.50; paper, \$12.95.

There is an important historical aspect to both these volumes, although they are otherwise very different. Oelschlaeger speaks with a philosopher's vocabulary in showing how the concept of wilderness has changed dramatically from earliest times to the present. Worster's collection of essays deals more pragmatically with what he refers to as "the new and rapidly growing field of environmental history." Both books are concerned mainly with how human perceptions of wilderness and the natural world have evolved and what the implications of that evolution are for the future. There can hardly be a more critical issue.

Central Park 1857-1995: The Birth, Decline, and Renewal of a National Treasure. Eugene Kinkead. W. W. Norton, 1990, \$22,50.

Only when one views New York City from above, as from aircraft, can the remarkable fact of the park's existence—what Kinkead calls "a wondrous slice of nature"—in the brick and concrete mass of Manhattan be fully realized. The author traces the park's chaotic history, repeatedly fraught with serious threats to its survival, and shows the extent to which the fate of the park hinged on the personalities and whims of the politicians and administrators who were responsible for it.

The Nuclear Lion: What Every Citizen Should Know about Nuclear Power and Nuclear War. John Jagger. Plenum. 1991. \$24.95.

This excellent, readable book time and again persuasively marshals the facts against popular misconceptions. Time and again the reader is shown how frequently the realities of risk are at odds with widely held perceptions. If indeed "every citizen" were to have access to Jagger's arguments, and took advantage of that opportunity, the future would be far more promising.

A Forest Journey: The Role of Wood in the Development of Civilization. John Perlin. Harvard, 1991. \$14.95.

Although the third world's dependence on wood is dramatic, even the industrialized nations, dependent as they are on fossil fuels and nuclear power for basic energy, continue to demand a wide variety of forest products. Worldwide, pressure on the world's forests is alarming, with little relief in sight. Perlin traces the role of wood in the "culture, demographics, economy, internal and external politics, and technology" of human societies back to the Bronze Age.

Poisons of the Past: Molds, Epidemics, and History. Mary Kilbourne Matossian. Yale, 1989. \$22.50.

History is perhaps too often taught largely in terms of military and political events. This book is a welcome, if unavoidably somewhat speculative, examination of the role played by fungal invasions of basic food supplies such as the ergot disease of rye. The author provides a fascinating account of how this disease affected human health, longevity, and population trends and may well have led to the persecution of so-called witches.

The Age of the Earth. G. Brent Dalrymple. Stanford, 1991, \$49.50.

Science cannot lay claim to certainty; it can at times closely approach that position, as it does in asserting that the earth is about four and a half billion years old. Dalrymple's book is devoted to showing just how this firm conclusion has been reached over a long period of research and analysis. He aspires, he says, to "a simple, satisfying, and enjoyable account for anyone who is curious" about the subject. For some the account will scarcely be simple; for most it will prove both satisfying and enjoyable.

After the Ice Age: The Return of Life to Glaciated North America. E.C. Pielou. Univ. of Chicago, 1991. \$24.95.

Pielou presents a clearly written and authoritative account of what happened during and after the most recent North American glaciation, which alone makes the book well worth the time devoted to its study. The book also has a more general message: the inevitability of ecological change. As Pielou puts it: "The notion expounded by so many nonprofessional ecologists—that the living world is 'marvelously' and 'delicately' attuned to its environment—is not so much a scientifically reasonable theory as a mystically satisfying dogma. Its abandonment might lead to a useful fresh start in environmental politics."

Transformations in American Medicine: From Benjamin Rush to William Osler. Lester S. King. Johns Hopkins, 1990. \$38.

Rocky Mountain Spotted Fever: History of a Twentieth-Century Disease. Victoria A. Harden. Johns Hopkins, 1990. \$39.50.

In substantial measure these books can be considered companion volumes; together they serve as a valuable reminder that the impressive medical services available now were won only after centuries of agonizingly slow progress. Few who lived in the first half of the 20th century, at least in rural areas, were unaware of ticks, spotted fever, and the laboratory in Hamilton, Montana.

Lawrence Willson

The Letters of Henry Adams. Vols. IV, V, VI, 1892–1918. Ed. by J.C. Levenson, Ernest Samuels, Charles Vandersee, and Viola Hopkins Winner. Harvard/Belknap, 1988. \$125.

With these three volumes of letters the whole correspondence of Adams from 1858, when he was 20, to his death at 80 in 1918 is before us: 2,885 letters (the 1,770 omitted would bring the grand total to 4,655), covering roughly 4,067 large pages of text (allowing for brief editorial commentary), not one of which is banal or boring. Adams is surely one of the two or three best letter-writers of his time (among Americans), approached only by such friends as Henry James and possibly Edith Wharton. These vol-

umes are a treasury of historical, political, and social lore (and gossip); adventures of travel (from one end of the world to the other); the mysteries of medieval literature, architecture, and art—all, indeed, that characterized the life of an exceedingly cultivated gentleman. They are perhaps less immediately appealing than the first three volumes (1858-92), when he was becoming cultivated, and so many of the letters are addressed to a single correspondent that the volumes might well be titled The Education of Elizabeth Cameron, the woman for whom Adams for 20 years nourished what used to be called (and was) a hopeless passion. Lizzie Cameron, a vain and rather dreadful woman (according to Henry James and others), safely married to a rich and, to her, intolerable husband, earned her niche among the famous by inspiring these letters and no doubt by making Adams the human being one does not find in the earlier (and much abbreviated) editions of W.C. Ford and Harold Dean

The Five of Hearts: An Intimate Portrait of Henry Adams and His Friends, 1880–1918. Patricia O'Toole. Clarkson Potter, 1990. \$25.

Apparently it takes a woman writer to make Adams come alive, as Arline Boucher Tehan showed a few years ago in Henry Adams in Love (reviewed in this column in the winter issue of 1986-87) and as Patricia O'Toole shows even more impressively and entertainingly in The Five of Hearts, where he is seen with the other Hearts: his wife and their three close friends, John and Clara Hay and Clarence King. This group for a time met every afternoon for tea at the Adams house in Washington (and often drawing closer together after the suicide of Clover Adams in 1885), a salon for the wittiest, most intelligent, most sophisticated—and most malicious denizens of the nation's capital in the 1880s. For what it may mean (probably nothing), they were all little people (physically, that is), ranging in stature from five feet, six inches (King) through five-four (Adams) to five-two (Clover Adams and John Hay, maybe a fraction of an inch less for Clara); and the males, except King, were the victims of unrequited passion (Adams for Lizzie Cameron, who towered over all of them at five feet, eight inches, and Hay for Anna, the wife of Henry Cabot Lodge). King was the exception, "married" under a false name to a black nursemaid in New York, whose existence was not known to the others (except eventually to Hay, who gave her money) and who bore him five children; nor, naturally, could King reveal his duplicity to the other Hearts without running an impossible risk. As for Clara Hay, she was simply rich. Although the lives of these privileged people, like Edith Wharton's life, should have been what superficially they appeared to be-distinguished by happiness and rectitude—clearly they were not; but to read about them in this admirable account still, however illogically, makes them sound enviable.

The Diary of H.L. Mencken. Ed. by Charles A. Fecher. Knopf, 1989. \$30.

Now that the tumult and shouting have somewhat died down (but only to be reactivated by the unpacking of more crates of incriminating autobiographical manuscripts in Baltimore, New York, and New Hampshire), it is time for the self-righteous to unruffle their feathers and turn to a calmer perusal of this book. If in it Mencken speaks rudely of black people and Jews, why was anybody surprised, considering the place and time in which he lived? He was, this being a diary, presumably talking to himself. It may be unfortunate that the diary was published without more extensive excisions; but if it was to be published at all, we had better have the man as he was, unemasculated, with his prejudices openly revealed, along with a constant wit and some wisdom. After all, prejudice was his hallmark. And be it remembered, as Charles Scruggs wrote in The Sage of Harlem: H.L. Mencken and the Black Writers of the 1920s (reviewed in this column in the winter issue of 1985-86): "The black writer as we have come to know him might never have existed had it not been for Mencken. He helped make the idea that there could be black writers a real one to the Negroes themselves; . . . that he could not do more for the Negro is the result of an intelligence as provincial as it was perceptive."

The Letters of Ralph Waldo Emerson. Vol. 7. Ed. by E.M. Tilton. Columbia Univ., 1990. \$45.

This seventh volume of Emerson's letters (uniform in size and appearance with the six volumes edited by Ralph

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Leslie Rusk and published in 1939) contains a portion of the 2,000 letters of Emerson that have been discovered since 1939. Letters from 1807, when the writer was four years old, through 1844 (very few before the 1820s) are printed here, to members of his family (many to his aunt, Mary Moody Emerson), to Lydia Jackson (before his marriage to her in 1836), and to members of The Club (of Transcendentalists) and fellow-travelers of Transcendentalism such as Caroline Sturgis, F.G. Hedge, J.F. Clarke, Bronson Alcott, Jones Very, S.G. Ward, Elizabeth Peabody, and W.H. Furness. The voluminous annotation appears to be without flaw and there is a long, informative introduction. More supplementary volumes will follow, as is clearly indicated by the lack of an index in this one.

Studies in the American Renaissance, 1990. Vol. 14. Ed. by Joel Myerson. Univ. of Virginia, 1990. \$40.

Again Myerson has assembled a collection of essays (five dealing with Thoreau, two with Melville, and one each with Emerson, Poe, and Cooper) that greatly extend our knowledge of matters both great and small touching on the national letters in the 19th century. It will be news to some, for instance, that Sophia Peabody Hawthorne was a painter of sufficient distinction to invite the attention of the principal American artists of the day (Allston, Doughty, Harding). An informative essay titled "Thoreau's Watershed Season as a Poet," by Elizabeth Hall Witherell, editor in chief of the authorized edition of Thoreau's writings, tells us how and when he discovered that to be the bard of the age was not to be his destiny, and "Thoreau's Diet at Walden" discusses the relationship, or lack of it, between his not very appetizing or nourishing meals by the Pond and the consumption that killed him. The volume also contains the second part of a selection of letters by Thoreau's frequent walking and traveling companion, William Ellery Channing, including letters (and responses to them) to his estranged wife, whom he "commanded" to return to him and bring the children. As one would expect of Margaret Fuller's sister, she did nothing of the kind.

Robert P. Sonkowsky

The Arabian Gulf in Antiquity. Vol. I, From Prehistory to the Fall of the Archaemenid Empire. D. T. Potts. Oxford, 1990. \$110.

The second volume will complete this first comprehensive survey of the archaeology and history of the area from ca. 8000 B.C. to the Islamic Conquest. The author's conviction that the commonalities perceived today among Kuwait, Saudi Arabia, and the other Gulf countries cover ancient underlayers that justify studying them as a unity was his original motive for the volumes, but he disclaims and avoids any suggestion that today's problems in the region are the result of unbroken historical continuity. The current volume is a clearly written synthesis of the palaeological, archaeological, and inscriptional evidence to ca. 300 B.C. The descriptions and commentary, plates and drawings, maps, plans, and tables, along with extensive notes and bibliography, not only will receive the notice of scholars, but will convince the interested general reader that in this region, which has received recent attention of a different kind, there is "more beneath the ground than oil."

Senecan Drama and Stoic Cosmology. Thomas G. Rosenmeyer. Univ. of California, 1989. \$32.

It is an old question whether Seneca the Roman philosopher continues to be a philosopher when he composes his tragedies—that is, whether they promulgate Stoic doctrine. Rosenmeyer not only summarizes clearly the old evidence on Stoic ethics and psychology but adds that of Stoic cosmology. This puts on firmer ground the opinion that Seneca does indeed promulgate Stoicism in his plays and leads to a fuller understanding of Seneca's influence on subsequent European drama.

Victoria Schuck

Justice from Beacon Hill: The Life and Times of Oliver Wendell Holmes. Liva Baker. HarperCollins, 1991. \$29.95.

This unexcelled biography of one of America's most influential justices of the Supreme Court details his life and work spanning the country's history from pre-Civil War years through the early New Deal (1841-1935). Baker begins her thoroughly researched, absorbing, and, indeed, demythologizing account-Holmes became a popular legend in his time-with his Boston Brahmin family and its pervasive elitism. Civil War service (thrice wounded); Harvard education; private law practice; publication of a seminal book, The Common Law; development of an inimitable writing style; and two decades on the highest court of Massachusetts, including two final years as chief justice (1882-1902)-all were formative to three decades (and participation in almost 6,000 cases) on the Supreme Court (1902-32). Private life, marriage, romance with Lady Castletown, and sketches of the Court are entwined with the social, political, and economic turbulence in the nation. But what gives the book its definitive character is the penetrating treatment of Holmes's judicial record. Baker argues compellingly that Holmes viewed constitutional law as "experimental," change as "inevitable," and his role essentially as negative-to find statutes "not unconstitutional."

The Paradox of Change: American Women in the 20th Century. William H. Chafe. Oxford, 1991. \$22.95. The World's Women, 1970–1990: Trends and Statistics. United Nations, 1991. \$19.95.

Chafe's new history of the changing roles of women in America and the vast collection of U.N. statistics on the global conditions of women exemplify the extent to which issues of women's rights have moved from consideration in a single state to become significant international agenda.

Chafe incorporates recent scholarship in a lively account of the gains and losses of women from the Progressive Era into the 1990s. Yet despite political activism and the revival of feminism and ideology, the inequality between men and women has continued. Chafe relates the complexities and barriers of racism and class and ponders the question of social change and social action.

The U.N.'s assembly of statistics, country by country in regional groupings, provides a warehouse of knowledge on how global conditions are or are not changing for women. Succinct text, charts, and graphs illuminate the categories of data: population; family

life; and women's leadership and decision making, health and childbearing, education, and economic life. This book is an invaluable source to sustain the thesis that words are insufficient; numbers can support the eradication of unfairness and the demands for equal status.

The Creation of Washington, D.C.: The Idea and Location of the American Capital. Kenneth R. Bowling. George Mason Univ., 1991. \$45.50.

An engaging historical account of how the District of Columbia was placed, after numerous political struggles, on the banks of the Potomac River. Bowling has plumbed not only the documentary base in the Confederation Congress, the Constitutional Convention, and early congressional debates, but thousands of letters of participants. Why the Constitutional Convention wrote the jurisdiction clause into the Constitution giving Congress power to "exercise exclusive Legislation" over the District of Columbia—which it has never relinquished—is significantly told, as is the tangle of issues over the federal government's assumption of the states' Revolutionary debts in the compromise of 1790. The book is appropriate for the celebration of Washington's Bicentennial of the Founding now under way.

The Lessons of History. Michael Howard. Yale, 1991. \$27.50.

To delineate how wars come about, how they should be conducted, and, more important, how they can be prevented, a distinguished military historian offers insights into development of societies, cultures, and value systems. He amply covers the causes that produced 20th-century wars. Furthermore, his essays, in elegant prose, include the rise and extent of nationalism and the ideologies that stem from industrialization. Nor does he overlook the change in attitudes throughout the world brought about by universal education and mass communications. Also he finds that material gains in the welfare state with industrialization tend to replace a culture of heroic achievements, lessening belligerency. Yet organized violence continues. In a final chapter he addresses structure and process in history and the justification for study and skill in using "reason and judgment both educated and created by historical experience."

The American Speakership: The Office in Historical Perspective. Ronald M. Peters, Jr. Johns Hopkins, 1990. \$39.50.

Peters provides an understanding of the U.S. House of Representatives and the political system affecting it, within the "prism" of the Speakership. His book traces the evolution of the office through four periods—the "parliamentary" of Clay, the "partisan" of Cannon, the "feudal" of Rayburn, and the "democratic" developing since 1961—together with the national changes, party alignments, and policy agenda paralleling the transformations. The book, a convincing historical interpretation, should appeal to specialists and nonspecialists alike.

Ronald Geballe

A Journey into Gravity and Spacetime. John Archibald Wheeler. W.H. Freeman, 1990. \$32.95.

No one else in our time is so able as Wheeler when it comes to treating this subject in a vivid, imaginative style that will intrigue and enlighten the general reader while maintaining scientific integrity. New metaphors abound, such as the picture of mass gripping spacetime, telling it how to curve, while spacetime grips mass, telling it how to move. Beginning with Newton's notions of space, time, and gravity, Wheeler carries the history through Leibniz, Gauss, Riemann, and Mach, all deep thinkers, to Einstein and beyond. This account is further enlivened by many delightful, informative illustrations.

Benjamin Franklin's Science. I. Bernard Cohen. Harvard, 1990. \$35.

A significant reason for Franklin's prowess as a European negotiator for, first, the colonies and, later, the new republic was his widespread recognition as a scientist. Cohen, a distinguished student of Franklin's scientific work, deals mainly with the six-year period during which his subject was able to focus on science, but does not neglect the earlier and later periods. Much more than the gadgeteer and inventor (the Franklin stove) he is often labeled, Franklin is responsible for some profound advances such as the law of conservation of electric charge, which remains one of the foundations of physical theory. The broader motivation of this practical man is found in his statement that if "there is no other use discover'd of Electricity, this, however, is something considerable, that it may *belp to make a Vain Man bumble.*"

The Joy of Insight. Victor Weisskopf. Basic Books, 1991. \$24.95.

Weisskopf has had the opportunity to gain a perspective on science and the world that few others have. Born an Austrian Jew, he came of university age just when quantum mechanics was changing the way in which atoms were treated, came to the United States and taught at MIT, made a bomb, returned temporarily to Europe to head the international CERN laboratory, advised the U.S. government and even the pope. He is an eloquent spokesman for science as a cultural process. In this autobiography he opens his mind and heart.

Dirac: A Scientific Biography. Helge S. Kragh. Cambridge Univ., 1990. \$44.50.

P.A.M. Dirac was one of the giants who created, in the 1920s, the new science of quantum mechanics. Little known outside the world of physics, and noted for his taciturn responses. he was brought up in an emotionally cold environment and was discouraged from making social contacts. This volume offers a comprehensive treatment of his life, personal and scientific. It treats his monumental discovery of how to meld quantum mechanics with relativity, an advance that led to the demand for a positively charged twin to the electron. Kragh does not shy away from Dirac's failures-failures that were motivated by his creed, "It often happens that the requirements of simplicity and beauty are the same, but where they clash the latter must take precedence." Bohr commented that "of all physicists, Dirac has the purest soul."

The Lord of Uraniborg: A Biography of Tycho Brahe. Victor E. Thoren. Cambridge Univ., 1991. \$59.50.

The Brahe family ranked among the highest Danish nobility during the 16th century, and Tycho unavoidably held the distracting responsibilities of this rank while he tried to carry on his astronomical explorations. In conventional treatments of the development of astronomy, Tycho falls somewhat

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casually between Copernicus and Kepler; his superb observational data, on his death, were given to the latter, who used them to discover the secrets of planetary orbits and to demonstrate that the solar system is indeed a system governed by the sun. But Tycho's astronomy was full, and his complex life as unrolled by Thoren offers an opportunity to observe many facets of European culture at that time.

Linus Pauling: A Man and His Science. Anthony Serafini. Paragon House, 1989. \$13.95.

Serafini characterizes Linus Pauling as "the American Cowboy of science. Never one to shy away from controversies or challenges." Among the pioneers, in the 1920s, to apply the new quantum mechanics to chemical bonding, he opened the attack on sickle-cell anemia and nearly won the race to discover the structure of DNA. He contributed to the theory of anesthesia. His courage, often displayed when following intuition in the absence of hard data, became a matter of public attention as he pursued the search for peace that brought him a

second Nobel Prize as well as the outrage of Senator McCarthy. Pauling picketed the White House as a prelude to dinner there with the president.

Schrödinger: Life and Thought. Walter Moore. Cambridge Univ., 1989. \$42.50.

Quantum wave mechanics, one of the two successful approaches to treating atomic structure and interactions, was the creation, during the fast-moving physics of the 1920s, of a complex Austrian physicist. So was the brief, influential book "What Is Life?" Moore has provided a remarkably full account of Schrödinger's personal life, as well as his professional one, that shows his unconventional approach to women along with his striving for a philosophical unity of Mind and Nature.

The Man Who Knew Infinity: A Life of the Genius Ramanujan. Robert Kanigel. Charles Scribner's Sons, 1991. \$27.95.

Ramanujan was and remains a unique figure of the 20th century. A self-taught young Hindu mathematician, aided by friends who believed in his genius, he gathered the courage to write to the distinguished English

don, G.H. Hardy, in a letter that included some of the results in his notebooks. Hardy recognized these as the work of a man whose like was not to be seen again and arranged to have Ramanujan come to Cambridge. His legacy has still not been mined completely. The Ramanujan story has many dimensions, including the cultural and the tragic, and Kanigel's Life moves in all of them.



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