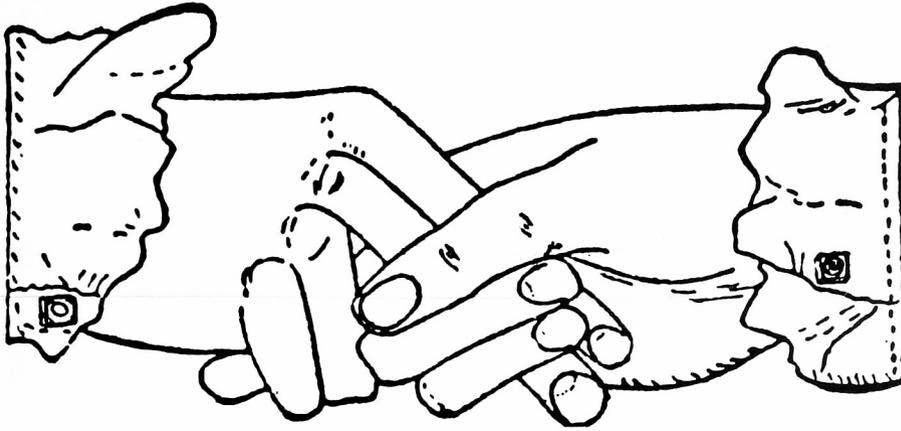




The Key Reporter

VOLUME XLV □ NUMBER FOUR □ SUMMER 1980



COMING TO GRIPS

Phi Beta Kappa keys were \$5, \$6, and \$7 in an advertisement that appeared in volume I, issue 1 of the *Key Reporter* in the winter of 1936. The lead article asked the reader to "shake hands" with the 75,000 other Phi Beta Kappa members (we now number approximately 300,000) through the *Key Reporter* and gave the history and instructions for the grip for those whose memories of their initiation ceremonies had dimmed.

Several unauthorized and probably erroneous early descriptions of the grip existed. The best-preserved of these was published by Avery Allyn, an antimasonic agitator, who in 1831 wrote a book "containing 'A Key to the Phi Beta Kappa'" with a purported illustration of the grip [below]. He wrote: "The sign is given by placing two forefingers of the right hand so as to cover the left corner of the mouth; draw them across the chin. The grip is like the common shaking of hands only not interlocking the thumbs; and at the same time gently pressing the wrist" (KR I(1):4).



The grip in general use today (above) is the one that was described in the first *Key Reporter* as follows: "Each member grasps with the little and ring fingers and the thumb of the right hand the first two fingers of the other member's right hand. When the hands come together with the fingers spread by twos, thus enabling them to straddle each other before mutually closing on the first two fingers, this handclasp will be found an amazingly facile and fraternal way to shake a ΦΒΚ hand, although hands are now shaken officially only when members are initiated, and sometimes not even then." (KR I(1):4).

At first there was some confusion about where the first official illustration of the grip had appeared. The 1936 article said that it was in the records of the Hobart Chapter as having been received at its organization in 1871 from the Union Chapter. But in the next issue we learn that Morton C. Stewart (Brown, 1894), a longtime officer of the Union Chapter, had written in to say that "the first official illustration of the grip is not that in the Hobart Chapter records for 1871 but an exactly similar pen-sketch in the Union Chapter's record book dated 1817." (KR I(2):44).

Subsequent research by William T. Hastings, who wrote *Phi Beta Kappa as a Secret Society*, and Oscar M. Voorhees, the Phi Beta Kappa Historian who wrote *The History of Phi Beta Kappa*, has confirmed that the drawing was sent from Yale in 1817 with the charter for the Union Chapter.

1980 SIBLEY FELLOW CHOSEN

Amy Lucille Varin, a Phi Beta Kappa graduate of Radcliffe College who is working toward her Ph.D. degree at Harvard University, is the winner of the Mary Isabel Sibley Fellowship for 1980.

Miss Varin has been interested in folklore, medieval epics and romances, and languages since her childhood. In her dissertation she plans to study the cult of St. Guénolé, the founder of the Breton abbey of Landévennec, consulting a ninth-century Latin work on his life as well as later writings in Latin, French, and Breton. She has recently completed a year of research at the Université Catholique de Louvain in Belgium, where she obtained a Diplôme d'Etudes Médiévales.

In 1981 the Sibley Fellowship, which carries a stipend of \$7000, will be offered for the study of Greek language, literature, history, or archeology. Candidates must be unmarried women between 25 and 35 years of age who hold the doctorate or who have fulfilled all the requirements for the doctorate except the dissertation. They must be planning to devote full-time work to research during the fellowship year that begins September 1, 1981. Further information and application forms may be obtained by writing to the Mary Isabel Sibley Fellowship Committee, Phi Beta Kappa, 1811 Q Street, N.W., Washington, D.C. 20009.



Amy Lucille Varin



THE HERITAGE OF OUR LAKES

by David G. Frey

Water-filled basins are fragile, evanescent features of our landscape. Most have a life expectancy of only a few thousand years. Very few of our present lakes have existed for as long as a million years, and even this is a relatively short period of time geologically.

The word limnology means the study of lakes, although in modern times the discipline has expanded to include streams and rivers as well as lakes. The present instant in earth history is a good time to be a limnologist, and North America is a good place for a limnologist to be. The contiguous 48 states are estimated to have more than 100,000 lakes, Alaska probably has a million or more, and Canada, particularly Ontario, Quebec, and Newfoundland, has several million. Most of these lakes resulted from the activities of glaciers, and because the last ice age ended only 10,000 years ago, most of the lakes formed during the latter part of that period still survive.

Limnological Concepts

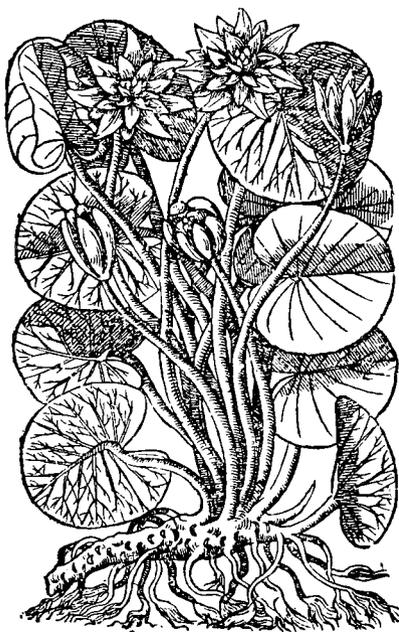
Life in a lake is supported by the chemical energy in the organic matter, most of which derives from in situ photosynthesis by algae and higher aquatic plants. The quantities of these plants are regulated by the quantities of essential nutrients that get into the lake, chiefly from its watershed or catchment area. A watershed is like a big funnel, with the lake occupying the stem. The conditions of the watershed intimately affect the nature of the lake.

Lakes tend to accumulate nutrients and other materials. The total of the inputs is greater than the total of the outputs. The difference is the amount being recycled through the organisms in the lake and the amount incorporated in the sediments.

Most organisms require molecular oxygen for respiration. They have an oxygen demand. Dead organic matter also has an oxygen demand through

the activities of the organisms, chiefly bacteria, that use this organic matter and in the process release the contained phosphorus, nitrogen, and other elements in simple chemical forms that can again be utilized by plants. The nutrients can be recycled many times, but the chemical energy can be used only once.

Warm water is lighter than cold water and hence tends to remain at the top of a lake as it is warmed. If the wind is not strong enough to



distribute this warmer water throughout the lake, a two-layered system results. The warm layer has adequate light for photosynthesis and is circulated by the wind. Its needs for oxygen are satisfied not only by photosynthesis, which releases molecular oxygen as a by-product, but also by diffusion from the atmosphere. As a result, the upper layer seldom experiences dangerous depletion of oxygen. The lower layer, on the other hand, is cut off from contact with the atmosphere and usually enjoys little or no photosynthesis because of insufficient light. The oxygen used in respiration by bacteria and animals cannot be replaced, and hence an oxygen deficit is generated, which becomes progressively more severe as stratification continues. The magnitude of the deficit depends on how much oxygen is available, how intense the oxygen demand is, and how long the stratification persists. The amount of oxygen available is controlled by the volume of deep water, which becomes progressively reduced over time by the accumulation of sediments—a thoroughly natural

process that helps bring about the extinction of lakes. The intensity of the oxygen demand is controlled mainly by the rain of organic particles from the warm upper layer. Large populations of algae generate more such particles, resulting in a more rapid depletion of the deepwater oxygen supply. Through an increasing demand for oxygen as a lake becomes more productive and a diminishing supply of oxygen as the deepwater volume becomes reduced, a productive shallow lake can use up its entire supply of oxygen in deep water during summer or winter stratification.

What Sediments Tell Us

Paleolimnology is an attempt to uncover the history of a lake and the events that shaped its development. The sediments of a lake accumulate in chronological sequence, with the oldest at the bottom. Since the nature of these sediments reflects the conditions in the lake at the time the particular sediments were being laid down, a sensitive reading of this record can yield amazingly detailed insight into the history of a lake and its watershed.

Unproductive lakes are said to be oligotrophic and productive lakes eutrophic, with the process of increasing production for whatever reason being referred to as eutrophication. Before paleolimnology, limnologists believed that lakes almost always began their existence in an oligotrophic condition and became more productive, or eutrophic, over time through the accumulation of nutrients and the gradual reduction of their deepwater volume by the accumulation of sediments.

We now know this is not true. In Sweden, for example, studies have revealed lakes that were quite productive in early postglacial time, and then became considerably less productive as the nutrient supplies in the soils of the watersheds gradually became exhausted by leaching. The same is true of Lago di Monterosi in Italy. Its initial rather high level of productivity about 24,000 years ago declined to very low levels until 171 B.C., when the Romans constructed a road—the Via Cassia—nearby. This disturbance boosted the productivity to a level believed about equal to that of Frederiksborg Slotsø in Denmark, which is virtually a thick soup of algae much of the year. Productivity subsequently declined as the watershed restabilized and cut back on its delivery of nutrients to the lake.

In the same general time period,

This address was given at the Phi Beta Kappa initiation ceremonies of the Gamma of Indiana Chapter at Indiana University in April 1980.

clearing the forests for agriculture in southern Austria triggered a condition of permanent stratification in one of the lakes, which has persisted over 2000 years to the present.

The early impacts of man occurred at a time when the population pressure on the systems was much less than now. In addition, the stresses were more or less discrete events from which the lakes could recover in reasonable time, as they still can do from such discrete natural events as forest fires or episodes of vulcanism.

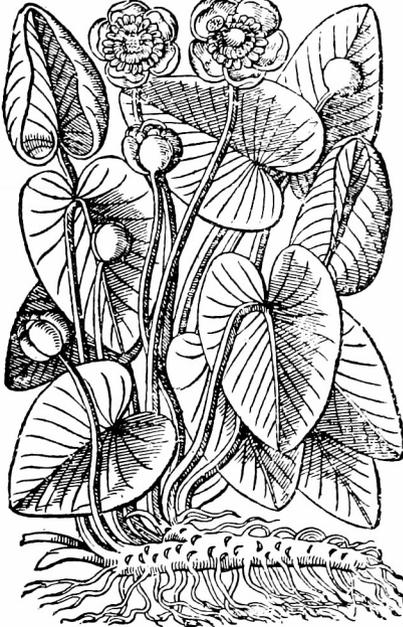
The situation is different today. With our much larger populations and the wastes they generate, intensive agriculture, and earth-moving activities, many of our lakes are being subjected to unrelenting and intensifying pressure. Increasing nutrient inputs usually lead to the development of massive blooms of blue-green algae, which rise to the surface forming scums and thick crusts. These scums paint the shoreline and associated structures and on decomposition create odors that make the region almost uninhabitable. Expensive homes go unoccupied, boats are taken out of the water, and water-contact activities cease. Before this point has been reached, the deepwater zone probably will have lost all its dissolved oxygen, bringing about the demise of all deepwater fishes and most other animals.

These changes are intensified by greatly accelerated rates of sedimentation accompanying man's activities in the watersheds. In Frains Lake, Michigan, for example, more than half as much sediment accumulated in the 150 years since European man cleared the surrounding forests for agriculture as in the previous 10,000 years. In part because of ignorance of the long-term consequences of man's activities, but perhaps more through our willful refusal to consider these consequences in favor of short-term economic gains, we have generated a large environmental debt. As Lee Talbot (formerly of the Council of Environmental Quality and now with the World Wildlife Fund in Geneva) said at the recent meeting of the Institute of Ecology in Indianapolis, "We haven't inherited the earth from our parents. We've borrowed it from our children."

What We Are Doing

Increasing uneasiness at the grass-roots level about our environmental problems led to the first "Earth Day" 10 years ago. Since then, various federal initiatives have addressed

problems of the environment. One of these is the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500), known as the Clean Water Act. The legislation that came to be Section 314 of this act was drafted and introduced by then-Senator Walter Mondale of Minnesota and Senator Quentin Burdick of North Dakota. Both senators were depressed by the tremendous impact human activities were having on lakes. Section 314 directed the Environmental Protection Agency (EPA) to



assist the states in controlling sources of pollution affecting the quality of freshwater lakes and to restore those public lakes that had deteriorated in quality.

EPA encountered some fundamental problems in implementing Section 314. There were serious questions about the adequacy of the technology available to accomplish lake restoration, and these led to concerns about cost effectiveness, especially because of the general belief that the program would benefit a relatively small number of people. A widely held opinion at that time was that lake quality would be protected adequately or even improved, through the control of point-source discharges and the construction of municipal wastewater treatment plants. These uncertainties led EPA to assign a low priority to the Clean Lakes Program.

In 1975, however, Congress, prompted by continuing public interest and pressure, supplemented the EPA budget with \$4 million to begin implementing the provisions of Section 314. EPA chose to distribute

these funds as demonstration grants, in an attempt to assess the feasibility of the various restoration techniques that had been proposed. Congress has continued to support this program at an increasing level. Through fiscal year 1980, \$66 million has been made available. Since 1975, EPA has received 176 applications from 39 states for lake restoration and has funded 112 of them at a total federal cost of \$45 million. Because these are all matching-funds grants, the total cost of the 112 projects is \$90 million, or roughly \$800,000 per lake.

The experience gained since 1975 has enabled EPA to answer many of the questions raised initially about the technical feasibility of lake restoration and about the desirability of including it as an integral part of a national water quality management strategy. There is now a battery of techniques available that have demonstrably and sometimes dramatically improved the quality of the demonstration lakes. Furthermore, it is clear that the problems facing the nation's lakes cannot be solved only by the control of point-source pollution and by the construction of municipal waste treatment plants. Management of diffuse sources of pollution and a certain amount of in-lake treatment will be necessary. Only through an intensive and integrated watershed program can we hope to retard the rate of eutrophication of our lakes and restore the seriously degraded ones to acceptable condition.

Early this year, EPA published in the *Federal Register* a regulation for administering the Clean Lakes Program as an integral part of state and federal water quality management programs. The stated goal is to have one swimmable, fishable lake within 25 miles of every major population center by 1985. Lakes near urban centers can be expected to be more cost effective through greater intensity of use than lakes more distantly located, and because they are closer they will continue to serve the public during any major curtailments of transportation.

To achieve the 1985 goal, seven specific objectives have been identified that will help guide all decisions (italics mine): (1) Select projects to maximize public benefits. (2) Follow an integrated program approach. (3) Emphasize watershed management. (4) Implement energy-effective and cost-effective technology. (5) Encourage long-term maintenance of benefits. (6) Maintain active federal involve-

ment. (7) Conduct continuous program and project evaluation.

States that wish to participate in the Clean Lakes Program must establish by 1982 a classification of their publicly owned lakes according to how productive they are. Then within the context of the 1985 goal and the seven guidelines, the state must identify and rank order those lakes most in need of restoration. The lakes will be restored in that order as the necessary funds become available. Up to \$100,000 of federal money on a 30 percent matching basis will be available for each lake to assist in accumulating the necessary data base for working out the nutrient and sediment budgets and identifying their sources, and, in general, coming up with a plan of restoration that is tailored to the specific problems of the particular lake.

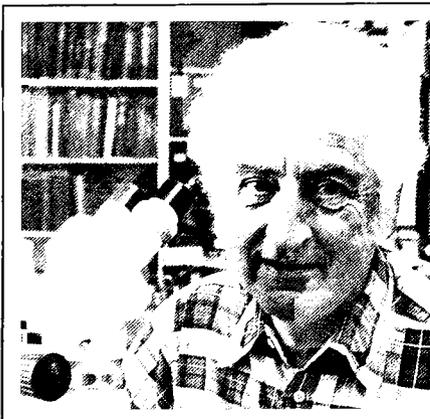
What Needs to Be Done

Through our understanding of limnology we know that the two major causes of our problems are phosphorus and sediments, both of which derive chiefly from the watershed. Reduction of the inputs of these substances from the watershed is dependent on the adoption of what EPA calls "best management practices" for various land-use activities, including forestry, agriculture, mining, transportation, construction, urban planning and development, and the husbandry of individual homes and home sites. Section 314 emphasizes the necessity for incorporating all these land uses into an integrated and comprehensive watershed management program. These land-use activities are not limnological matters, although they generate limnological problems. The proper management of these activities should be the responsibility of soils scientists, hydrologists, foresters, agriculturists, urban designers, and engineers, who have the appropriate expertise.

Limnologists are more appropriately concerned with the sediments and nutrients once they enter the lake and become involved in limnological processes. If the lake has become too shallow by sediment accumulation, there is nothing we can do as limnologists to make the lake deeper. If deeper water is required for lake restoration, then the sediments will have to be either removed to some location outside the lake or compacted by draining the lake and allowing the sediments to dewater.

But if the problem is nutrients, then limnologists can help. The upcoming attempts at lake restoration provide an unequalled opportunity for whole-lake experiments of the kind that we ordinarily would not be able to finance and probably could not get the permission to carry out even if we had the necessary money. Limnologists should be involved intimately in planning the various restorations attempted in order to maximize the opportunities to increase our understanding of lake dynamics. Eventually, we hope to be able to predict with some confidence the outcome of a restoration program designed for a specific lake, but before we can do that there is much more we need to know. For example, we need a much better understanding than we now have of the exchange processes between sediments and the overlying water and their controls. How can we immobilize the substances of concern so that they remain in the sediments without getting back into the water? We need a better understanding of the processes controlling the formation of sediments. Why are the sediments in some lakes compact at the surface with little or no overlying loose material that can be re-suspended during times of turbulence, whereas in other lakes the sediments are flocculent and unconsolidated

(continued on back cover)



David G. Frey, a member of Phi Beta Kappa, is a professor of biology at Indiana University. He received his A.B. degree and Ph.D. degree in zoology from the University of Wisconsin. After graduation he worked as an aquatic biologist at the U.S. Fish and Wildlife Service. He now serves as a consultant to EPA on lake restoration and is a member of the EPA Science Advisory Board. In addition, he serves on the editorial boards of many journals in his field and was the founding editor of *Limnology and Oceanography*.

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LEONARD W. DOOB, ANDREW GYORGY,
MADELINE R. ROBINSON, VICTORIA SCHUCK,

natural sciences

JAMES C. STONE, ELLIOT ZUPNICK
RUSSELL B. STEVENS, RONALD GEBALLE

VICTORIA SCHUCK

The GAO: The Quest for Accountability in American Government. Frederick C. Mosher. Westview, in cooperation with the National Academy of Public Administration. 1979. \$24; paper, \$12.

Cases in Accountability: The Work of the GAO. Ed. Erasmus H. Kloman. Westview. 1979. \$15; paper, \$7.50.

Mosher's excellent study of the General Accounting Office and its Comptrollers adds new understanding of the essential role this powerful agency plays in the federal government, for generalist and specialist. The book combines good history and good biography with cogent analysis and a crisp, absorbing style.

The State of the Presidency. 2nd ed. Thomas E. Cronin. Little, Brown. 1980. \$14.95.

The Pulse of Politics: Electing Presidents in the Media Age. James David Barber. Norton. 1980. \$15.95.

Who Votes? Raymond E. Wolfinger and Steven J. Rosenstone. Yale. 1980. \$15; paper, \$3.95.

Money in Congressional Elections. Gary C. Jacobson. Yale. 1980. \$15.

Cronin's update of his 1975 book relates the presidency to American values. His comprehensive treatment from recruitment to policymaking delves into myths and realities and the paradoxical expectations Americans have of a president. Barber argues two theses: that presidential elections ineluctably follow the recurrent themes of conflict, conscience, and conciliation every 12 years and that new power brokers, the journalists and broadcast elites, have superseded parties and bosses in selecting nominees. The two data-based monographs on voting and congressional campaign finance conclude, respectively, that level of education is the determining factor in voter turnout and that challengers, not incumbents, need more money if congressional elections are to be competitive.

How the Soviet Union is Governed. Rev. ed. Jerry F. Hough and Merle Fainsod. Harvard. 1979. \$18.50.

A major revision tantamount to a new book. The author, a former student of Fainsod, concentrates historical events in the first third and spends the remainder on the policy process, incorporating lengthy descriptions and contrasting interpretations of recent scholars. The reader senses more optimism in the process than Fainsod's view of totalitarian control afforded. The new text,

while providing in-depth understanding of the Soviet Union today, lacks the economical, distinguished style of the original.

The Irony of Vietnam: The System Worked. Leslie H. Gelb with Richard K. Betts. Brookings. 1979. \$11.95; paper, \$4.95.

An important history, drawn from new sources, of the decision-making process under six presidents (1946–1968) that led the United States more and more deeply into Vietnam in order to carry out a foreign policy committed to the containment of communism. The controversial thesis that the bureaucratic system “worked” although the policy failed explains the title, and is only partially sustained.

The Third Century: America as a Post-Industrial Society. Ed. Seymour Martin Lipset. Hoover. 1979. \$14.95.

On the whole, a stimulating group of sixteen essays treating a variety of issues and subjects facing the country, with occasional extrapolations of the future.

Congress and the Bureaucracy: A Theory of Influence. R. Douglas Arnold. Yale. 1979. \$17.50.

The author advances a theory of bureaucratic decision making in the geographic allocating of expenditure programs and couples it to a theory of congressional influence. This rigorous analysis based on three programs—the closing of military bases, water and sewer grants, and model cities grants—reveals an interdependence of House members and bureaucrats.

The Private World of Congress. Rochelle Jones and Peter Woll. Free Press. 1979. The hypothesis that members of Congress are motivated by the desire for power and status on the Hill is amply supported by illustrations of struggles to shape legislation, obtain membership and leadership positions on important committees, gain larger budgets and staffs, and reorganize the House and Senate in reform moves. Such inward drive for power increases both the isolation and the effectiveness of Congress.

RONALD GEBALLE

What Little I Remember. Otto Frisch. Cambridge. 1979. \$14.95.

We are approaching the end of the era during which first-hand accounts of the intervention of quantum mechanics and the events leading to the atomic bomb can be written. Frisch, whom intrinsic

ability and circumstances placed near the center of both, has left us his entertaining, unassuming account of the period. He has incorporated many fine anecdotes and a sketch of how atomic knowledge grew that will be accessible to the general reader.

Astronomy of the Ancients. Eds. K. Brecher and M. Feirtag. MIT. 1979. \$12.50. It is one thing to read about the precession of the equinoxes that gives us a new “North Star” from time to time, or even to observe in the speeded-up time scale of a computer-driven planetarium the inexorable motions of heavenly bodies. It is quite another for ancient peoples, spending a large fraction of life under the unobstructed night sky, to wonder, slowly piece together, and pass on the sophisticated understanding of the celestial sequences we now suspect they came to possess. In this book, eight authors attempt to reconstruct the thought processes that lay behind the physical, textual, and oral relics remaining from past millennia. A truly interdisciplinary effort is required to assemble and find meanings in them and to integrate them with modern science. Here is an opportunity to marvel at ancient man's perseverance, intellectual power, and imaginative formulation of useful metaphors.

Galileo at Work: His Scientific Biography. Stillman Drake. Univ. Chicago. 1978. \$25. Based on his own organization and detailed study of thousands of letters to and from Galileo and numerous other original records, Drake has worked out the development of Galileo's lines of thought and the complexities of his interactions with contemporary figures. The book is a fine tribute to the author at work no less than to the subject.

TOSCA: The Total Social Cost of Coal and Nuclear Power. Linda Gaines, R. Stephen Berry, and Thomas V. Long II. Ballinger. 1979. \$17.95.

TOSCA is a relatively simple, transparent analytical model for comparing the relative costs of varying mixtures of coal and nuclear power plants under a wide range of circumstances. It admits of local or regional circumstances and yields ranges, rather than dogmatic answers, in response to input data and projections of assignable uncertainty. By omitting political considerations it runs the risk of belying the first adjective of its title, but would admit them if one is ready to estimate their costs and play fair with uncertainties. Several examples are worked out. TOSCA takes no side in the debate and preaches no moral. It is available for use by persons of no special background.

A Source Book in Astronomy and Astrophysics, 1900–1975. Eds. Kenneth R. Land and Owen Gingerich. Harvard. 1979. \$50.

A selection of 132 significant papers appearing since the time astrophysics began to emerge as a self-conscious linking of astronomy and physics. Related papers are organized into sequences that tell the development of basic ideas.

Interpretive comments by the editors are interspersed, and they have provided many new translations from other languages into English. While most of the contents are reprinted from standard scientific journals, some are at the popular or near-popular level; many have been abridged to save space.

Scientists in Power. Spencer R. Weart. Harvard. 1979. \$17.50.

The process of the unfolding, during the early decades of this century, of the structure and reactions of atomic nuclei, was one in which French scientists were intimately involved. For a time the realization that uranium fission could be a source of power on a large scale was centered in the Curie family and their associates, and had it not been for the German occupation, France might have led the world to fission reactors. The French story as told by Weart is fascinating enough, taking place off the British-American plane with which we are familiar, but he goes beyond its scientific and technical aspects to lay out and comment upon the intense social and political views that influenced the French actors. One of those actors, Joliot-Curie, dominated as did no single person in any other country.

ELLIOT ZUPNICK

More Than Subsistence: Minimum Wages for the Working Poor. S. A. Levitan and R. S. Belous. Johns Hopkins. 1979. \$11.50; paper, \$3.95.

Minimum wage legislation has been controversial from its inception. Its proponents argue that it safeguards the most economically vulnerable from exploitation, while its critics contend that it is a leading cause of unemployment, particularly of minority youths and unskilled labor. The authors review the vast empirical literature that has appeared in recent years and conclude that "hard and fast quantitative results have remained elusive." Their observation that "respectable studies have come down on all sides of the issue" does not deter them from concluding, without any additional empirical research on their part, that "minimum wage has served a highly useful function." Is this progress?

Energy in America's Future: The Choices Before Us. S. Schure et al. Resources for the Future. Johns Hopkins. 1979. \$10.95. Written primarily for the general reader, this study examines three basic questions: whether the demand for energy can be constrained so that it grows less rapidly than domestic output; whether domestic sources of energy can be made available to support a growing gross national product; and whether the cost of that energy can be kept low enough to avoid massive structural problems. The authors reach surprisingly optimistic conclusions with regard to all three questions. This is an important book that deserves a wide audience.

The Efficient Use of Energy Resources. W. D. Nordhaus. Yale. 1979. \$17.50. Nordhaus develops a sophisticated econ-

ometric model to determine the efficient use of energy resources. Among his more interesting findings is that the "efficiency price" of Middle East oil in 1975 was \$3 a barrel as compared with an actual price of \$11. He attributes the difference between the efficiency price and the actual price to the "virtual monopolization of the international oil market." Because he believes that the 1975 prices already "captured" the full monopoly profits, he predicts that oil prices between 1975 and 2005 will rise by no more than 2 percent per annum. Recent developments cast serious doubts on these estimates.

The Failure of the Franklin National Bank: Challenge to the International Banking System. Joan Spero. Columbia. 1979. \$14.95.

The collapse of the Franklin National Bank in 1974 raised serious questions about the soundness of the international banking system. In this study, Spero explores in detail the reasons for the bank's collapse, the national and international responses to the crisis, and the episode's implications for the international banking system. This is an interesting and well-done case study of a potentially troublesome problem.

World Development Report, 1979. Oxford, for the World Bank. 1979. \$3.50.

The World Bank's annual report is indispensable to anyone with an interest in the less-developed countries. While the text highlights some important developmental issues, the serious student will delight in the wealth of data in the statistical appendix. One caveat: Previously free, the report now costs \$3.50. But it is still worth it.

JAMES C. STONE

The Lifelong Learner. Ronald Gross. Simon and Schuster. 1977. \$3.95. At double the price, this book would be well worth having. A super guide to adult self-education.

Curriculum Inquiry. John I. Goodlad. McGraw-Hill. 1980. \$17.50. This is an up-to-date and thorough textbook for school curriculum planners.

Regulated Children, Liberated Children. Barbara Finkelstein. Psychohistory Press. 1980. \$15.95; paper, \$6.95. Ten essays by various authors discuss the history of learners and learning.

The Uncertain Profession. Arthur G. Powell. Harvard. 1980. \$18.50. This lengthy treatise views the professionalization of education from the history and experience of Harvard's Graduate School of Education.

The Writing on the Wall: Inside Higher Education in America. Gail Thain Parker. Simon and Schuster. 1980. \$9.95. The current "state of bankruptcy" in higher education is described, and some proposals for reform are posed by a former college president.

Conflict, Retrenchment, and Reappraisal. Clark Kerr et al. Intro. John E. Corbally. Illinois. 1979. \$7.50.

Another college president introduces a series of essays by well-known authorities on the administration of higher education.

Psycholinguistics and Reading: From Process to Practice. Constance Weaver. Winthrop. 1980.

This is a compendium of all that is known about the reading process, the teaching of reading, and how to design a psycholinguistically based reading program.

Humanistic Teaching for Exceptional Children. William C. Morse. Syracuse. 1979. \$18; paper, \$8.75.

This book about all kinds of exceptional children emphasizes human experience—the lives of children—rather than abstract theory.

Dyslexia: Theory and Research. Frank R. Vellutino. MIT. 1979. \$19.95.

This book makes available for the first time a systematic and comprehensive treatment of dyslexia, the severe and pervasive reading impairment in otherwise normal children.

How to Study. James Deese and Ellin K. Deese. McGraw-Hill. 1979. \$4.95. Here is a must book on learning how to study for high school seniors and college freshmen, written by two seasoned professors.

Doing Good by Doing Little: Race and Schooling in Britain. David L. Kirp. California. 1979. \$11.95.

An analysis is presented of school integration policies in Great Britain as an interesting contrast to our own experience.

Legislated Learning: The Bureaucratization of the American Classroom. Arthur E. Wise. California. 1979. \$10.95.

The author of *Rich Schools, Poor Schools* has written another analytical and persuasive account of how we have fallen unfortunately from local control of what happens in schools to determinations by state and federal legislative bodies and their bureaucracies.

Spotlight on Educational Problems. Eds. Helge Dahl, Anders Lysne, and Per Rand. Columbia. 1979. \$24.

This is a translation of the writings on education problems of Johns Sandren of the Institute for Educational Research of the University of Oslo, in Norway.

Where to Find Tomorrow: A Zero-Cost Road to Better Public Schools. Nancy Fairley Ramseur and Mary Ramseur Lindsay. Gateway. 1979. \$10.95.

The authors deal with the basic issue of how to bring together the present divergent mix of background and abilities of students "in an atmosphere conducive to learning."

Education and the Democratic Ideal. Steven M. Cahn. Nelson-Hall. 1979. \$7.95. This is another articulate defense of the liberal arts in higher education.

The ABC's of Literacy: A Guide for Parents and Educators. Stephen N. Judy. Oxford. 1980. \$15.95.

This book points the way to more

effective language learning, based on current findings in language research.

Mass Media, Education, and a Better Society. Jay W. Stein. Nelson-Hall. 1979. \$14.95.

The author examines overcommunication and undereducation and suggests how these "social forces" can be put to constructive ends.

GUY A. CARDWELL

Part of Nature, Part of Us: Modern American Poets. Helen Vendler. Harvard. 1980. \$15.

If one judged from the places of first publication, these essays could be considered higher journalism; in fact, even the briefer reviews are wonderfully steady and exacting. Vendler is a sensitive lover of poets, a devoted friend of the common reader, the perfect composer of a *vade mecum*. She is in addition a superlative critic: her apt allusions and similitudes are more than learned decorations; her style is captivatingly mixed and firm; her judgments are ordinarily precise; and in her best work her affectionate clarity of vision discloses as by a reasonable miracle each poet's center.

The Mid-Eighteenth Century. John Butt. Oxford. 1979. \$28.50.

Following the death of John Butt, this eighth volume of the Oxford Series of English Literature was completed by his colleague at the University of Edinburgh, Geoffrey Carnall. Approximately half of the planned set of thirteen volumes (several divided into half-volumes) has now been published. The books are to be cherished by students of literature and of cultural history for the reliable information that they supply and for their annotated bibliographies.

The Republic of Letters: A History of Postwar American Literary Opinion.

Grant Webster. Johns Hopkins. 1979. \$22.50.

Ideas borrowed from the history of science about the rise and fall of paradigms are used to work out on historical bases stages in the development and decline of modern critical modes. This organizing

The Passion Artist. John Hawkes. Harper and Row. 1979. \$9.95.

A modernist exploration of ancient terrain traversed as in a dream: love, passion, guilt, loss, despair, and discovery. Serious critics disagree vehemently about this, the tenth book by a writer who has provoked controversy before. The novel is considered a triumph of art, a revelation of man's unconscious, a masterpiece of poetically erotic comedy; and it is also thought to be empty pretentious and tiresomely deficient in existential reference. Most readers would agree that the language is superbly chosen, the sentences meticulously shaped, the surface details precise and convincing, the total effect surrealist and incantatory.

The Economics of the Imagination. Kurt Heinzelman. Massachusetts. 1980. \$18.50.

Unlike exercises that abstract the economic programs of novelists from their writings, this more sophisticated study explores some of the myths we live by. It indicates how economic theory structures economic discourse, how political economy "incorporates these structures systematically, and how this art is then expressed, reassessed, and transfigured in literature." Economic metaphors are shown to inform speech, social fictions, and literature and to be translated into forms of thought.

The State of the Language. Eds. Leonard Michaels and Christopher Ricks. California. 1980. \$14.95.

If thirty-five or forty of the sixty-three essays (and poems) printed here had been screened out, the remainder would have made an interesting collection. As the book stands, the pieces vary from being trivial to substantial, dull to witty, amateurish to learned, authoritarian (so far as language is concerned) to libertarian. The better essays range from remarks on dictionaries and ethnic sensibilities to Chinese English, to clichés, to the new Episcopal liturgy.

MADELINE R. ROBINTON

The Foundations of Modern Political Thought. Vol. I. **The Renaissance.** Vol. II. **The Age of the 17th Century.**

the same time span as Skinner, of Cambridge, but his major concern is with the religious history of the period. Based on 10 years of his lectures to Yale undergraduates, it is more colloquial in style and more oriented to the growth of Protestantism.

Clio Unbound. Perception of the Social and Cultural Past in Renaissance England. Arthur B. Ferguson. Duke. 1979.

Ferguson's contribution to the study of the Renaissance is of a totally different character. Restricting his attention to England, he is concerned with the emergence of a new historical consciousness in Tudor England when History was still little more than Chronicle. This scholarly monograph explores the growing awareness of social change and the use of historical sources (often the results of antiquarian studies) by those faced with the problems of change in the church and particularly the ecclesiastical revolution, in the law and its administration, in the language and its evolution, and even in the course of civilization stimulated by the discovery of the New World and the arrival of information from it.

Carnival in Romans. Emmanuel Le Roy Ladurie. Trans. Mary Feeney. George Braziller. 1979. \$20.

This volume centers on the events in Romans during two weeks in 1580, "the eye of the hurricane" in the "bitter chronology of the Wars of Religion" in France. Using, primarily, local archival sources, Ladurie, in the *Annales* method, brilliantly reconstructs the circumstances that led the local peasants, craftsmen, and bourgeois to burst into revolt at carnival time against the tax structure and the privileges of the nobility. The story is a fascinating one, masterfully told. The personalities come alive, and the social background is a tapestry rich in detail illuminated by folklore and the complexities of religious, antiseigneurial, and urban conflict. Ladurie in his foreword compares the outburst to events in 1979 in Iran and states that will help us understand 1580 better—the reverse is also true.

COMMISSION ON THE HUMANITIES TO RELEASE REPORT

The state of the humanities at the beginning of the 1980s is the subject of the recently completed study by the Commission on the Humanities, sponsored by the Rockefeller Foundation. *The Humanities in American Life: Report of the Commission on the Humanities* will be available from the University of California Press in early October.

In a statement from the first chapter, the commission notes that, "The humanities are an important measure of the values and aspirations of any society." Gaines Post, Jr., the executive director of the commission, says, "Our report is an attempt to redefine and rethink the importance of the humanities in American education and public life."

The commission examined the humanities in formal school curricula, the humanities in nontraditional areas beyond formal education—such as museums, libraries, and television—and public and private financial support for the humanities. Among their conclusions and recommendations, according to Post, is the decision that "the highest educational priority for the 1980s is to improve the quality of education in our elementary and secondary schools." He adds that "strengthening the humanities is essential to that improvement."

The present commission is the second such group to study the humanities. The first was formed in 1963 by the United Chapters of Phi Beta Kappa, the American Council of Learned Societies, and the Council of Graduate Schools in the United States. The establishment of the National Endow-

ment for the Humanities and the National Endowment for the Arts was a direct result of their report.

Richard W. Lyman, the former president of Stanford University and now president of the Rockefeller Foundation, is the chairman of the present commission, and the 31 members include distinguished scholars, academic administrators, business leaders, and representatives of foundations, media, and the arts.

READING (continued)

The Rise and Fall of the Shah. Amin Saikal. Princeton. 1980. \$14.50. Although the author, connected with the Australian National University, acknowledges it is too early to provide a comprehensive scholarly analysis of the Shah's fall, he had begun his research in 1975 convinced of its inevitability. He completed the book in 1978 and added a few pages, after the fact, in 1979. An Afghan trained in political science, Saikal attempts to describe the developments in Iran not in Western terms but in Iranian terms in the context of its contemporary history. A helpful study.

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LAKES (continued)

for a thickness of a meter or even more? We need to know much more about the conditions that favor the development of problem blue-green algae as eutrophication intensifies. Answers to these and other questions will require sophisticated laboratory studies as well as whole-lake experiments.

Other problems are just beginning to be recognized. One is toxic substances, such as heavy metals, radioisotopes, asbestos fibers, and organochlorides, which already occur at such concentrations in some bodies of water as to render the water unfit for drinking and the fish that live in it unfit for eating. Another problem is acid rain, which in southern Norway and the Adirondacks has already caused the complete elimination of fishes from many lakes. Many limnologists now believe that acid rain is the number one problem challenging our softwater lakes, not eutrophication. The atmosphere does not respect watershed boundaries. Reduction of the undesirable substances it transports is at least a regional problem and for some substances an international problem.

What is the heritage that we will pass on to our children? What is the compound interest rate on our borrowing against the future? Can we hope to contain this debt, much less to pay it off or reduce it to more manageable levels? It is difficult to be optimistic when the answers are not at all clear, but certainly we must work vigorously to combat the assaults on our global ecosystem. Otherwise the heritage we pass on will be very miserable indeed.

