

THE Key REPORTER

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U Butdz ofn Hpw Tzbu Quhhu

Cambridge University March 23^d 1702

No. 1.

Yzrbdzczr,

Iz bugz bprae zundwzab Tthtfn.
 barrubg of wrofnog gfa bpub, uynzwtadg of
 u Mpuwbzn onfc Iwddwucetanyr, bps ΦBK
 Xfmozbg iux zxbutanwepzl ub bprae Arn-
 jznowbg nrr bps Gfrbh fo Vady duab, tu
 bps Anux fo bps $\Delta Q\Phi$ fo Guaxumpaxz bba

FIFTHLY," specifies the charter sent to Harvard from Williamsburg in 1780, "... all correspondencies shall be through the President of each Society by means of the Table herewith transmitted. Which Table we charge you to preserve with the utmost care, observing to be thoroughly acquainted with the use of the same lest misunderstandings should arise in our Correspondence." The table consists of thirteen sets of interchangeable letters, as follows:

N	Z	A	O	C	Y	B	P	X	D	W	Q	V
R	E	U	F	M	G	T	H	S	L	I	K	J

The facsimiles on this page are of a letter, enciphered by the table, that was sent to the Yale Alpha (as chapters were known at the time) by Samuel Kendal, first president of the Alpha at Harvard. Deciphered, the opening paragraph reads, "We take this earliest opportunity to inform you that, agreeably to a Charter from Williamsburgh, the ΦBK Society was established in this University in the Month of July last, by the Name of Alpha of Massachusetts." Kendal then continues, "Our earnest desire to cherish those seeds of friendship, already planted, by the mutual communication of good offices has engaged us, though a younger society, to ask of you the favor,

and invite you to the advantages of a literary correspondence." As the Harvard Alpha was out of touch with the parent branch, the letter ends with this postscript: "We wish you would give us all the information you can respecting the Society at Williamsburgh."

The president of the Yale Alpha, Henry T. Channing, replied on July 1, 1782. His letter has been lost, but it was

not enciphered; and later Channing apparently thought better of his indiscretion. On October 10 he wrote to Harvard again, closing with these words: "I must observe that I have now written many things which ought to have been written by the T[abl]e but as I forgot to obtain it before I left N. Haven it is not in my power to avail myself of it."

In the meantime, things had been difficult in Williamsburg. A meeting of the Virginia Alpha held in January of 1781 turned out to be its last for seventy years. Twelve months later the only member of Phi Beta Kappa at the college was William Short, second president of the Alpha. Nevertheless, Short exchanged letters with the Yale Alpha during this period, so that Channing may well have passed along to Cambridge the requested news of the "Xfmwzbg ub Iwddwucetanyr." And it was probably optimistic news, for Short's letter of January 15, 1782, contains this passage:

"We are just arising, my dear Sir, from that abyss of misery and distraction into which a victorious hostile Army had plunged us . . . [1782] commences with the brightest prospects. Tranquility and order begin again to smile, and the paroxysms of joy which followed the Reduction of York now subsiding, men have leisure to look around them and enjoy the agreeable scene."

Or, A Table for Phi Beta Kappa

Wish, ipwdr, iz nzcunr gfan lzjftzl Anuzrba
 uncl Izxbprzr

Bps Infobprae fo bps $\Delta Q\Phi$
 fo Guaxumpaxz bba.

Samuel Kendal President

P.S. Iz invap gfa itadd yuj's aoc udd
 bps wrofnucubwfr gfa mur nzxhzmwry bps
 Xfmozbg ub Iwddwucetanyr.



SCIENCE AND THE MEANING OF ITS HISTORY

THE PAST is the vivarium of science, where we can see it actually at work. There are good reasons for studying the history of science, but the two most common arguments for doing so are both, I am convinced, wrong.

One should not study the past of science in order to project the trends and make a good guess about where science—or even a science—is going to be next year or in twenty years. A knowledge of history is not a crystal ball. It is true that the progress of thought is determined by psychological and social laws, and that we can often see after an event how it was predetermined by its antecedents. Specific prediction, nevertheless, almost always fails, or is right by mere chance, because the efficient antecedents are too numerous and too complexly related to be correctly understood. Laplace, for instance, thought that a complete knowledge of the present must necessarily, in a predetermined world, imply both the past and the future, and this is indeed the view of causal determinism, which is not a practical guide through the complexities of reality. The scientist's tomorrow constantly surprises him; we almost never know enough about the present to be sure of the future.

Nuclear physics, the scientific achievement of this midcentury, has a long and distinguished ancestry, but did the physicists of the 1930's suspect the impending revolution that is now an accomplished fact in the 1950's? Would anyone, looking over the American collegiate scene of 1800-1850—seeing the profusion of small sectarian colleges, with Presbyterian battling Baptist to infiltrate a board of trustees and make learning safe for righteousness—would any such observer have predicted America's relatively enthusiastic acceptance of evolutionary theory in the 1870's? Could anyone have foreseen how the GI Bill would undermine athleticism at Harvard (to speak only of the university I know best), consign the once honorific gentleman's C to the museum of past curiosities, and, within limits, make learning respectable? Who would have predicted in 1930 that the professor's lecture on psychological sex-differences would become dull for lack of a sizzling feminist in his class to resent his conclusion? Indeed culture changes.

Or consider a case of failure eventually turning into success. The brilliant neuro-

Edwin G. Boring is professor of psychology emeritus at Harvard University, and was a Phi Beta Kappa Visiting Scholar in 1958-59.

psychologist Karl Lashley spent his life "in search of the engram," a phrase that in 1950 was the title of one of his last papers. The engram is the trace in the brain representing a remembered perception or idea. For twenty-five years Lashley seemed to wage a losing battle. He kept finding that nothing stays put in the brain's cerebral cortex. A particular spot has one function today and another tomorrow; or if one cuts the spot out of the brain, its owner presently learns to use a new spot for the same old function. At one time it looked as if Lashley's skillful, ingenious, and indefatigable labor was destined to dissolve in failure.

But the face of nature was then changing under the combined attacks of physicists and psychologists. "Field theory" came into physics, the realization that causality often does not work between little bits of stuff, but only between large patterns of activity. The Gestalt psychologists, who were rebels against conventional psychological atomism, made comparable discoveries for human perception; they found that one can understand an optical illusion only by considering it as a whole. And that was just what Lashley had also been proving for the pattern of communal excitation in the brain: one can get useful laws for the brain only by considering the whole and ignoring the parts of which it is made

has listed more than 300,000 articles in its published bibliographies merely since 1894. The investigator must do his own historical research for each new topic he tackles. Published historical perspective shows only the high spots, the great trends, not the specific history; and even a small library has in it more facts than can ever be carried by a single brain.

So there we have two negatives. There is nevertheless a good reason for knowing the history of science. One finds that he needs to know about the past, not in order to predict the future, but in order to understand the present.

Enter the Psychologist

Such study is especially the psychologist's business, for science is a human activity that is both social and intellectual. Taken in perspective, it is the psychodynamics of the intellectual interaction between people, books, and nature. Men use observation and experiment to ask questions of nature and get back the answers; but the work of many men is required, and the books enable them to communicate across the centuries and also to remember more than their brains could ever carry.

There are at present no good texts on the psychodynamics of the history of science. A reader of the histories is supposed to induce for himself the general

If the history of science provides neither a crystal ball nor a hedge against wasteful rediscovery, what is its importance?

up. When Lashley died last year he was honored by all for his researches, which had changed the manner in which men think about the action of the brain, and honored by some who not so long ago had thought his life's enterprise would come to nothing.

Such are the reasons for the failure of prediction in a predetermined world. There are just too many surprises, there is too much ignorance of the many possibilities; one never knows half enough beforehand. Afterward one can see why events followed as they did; but that is afterward.

The other wrong reason for studying the past of science is to protect oneself from rediscovering something already known. This argument, like the other, fails because of the enormous complexity of science. Psychology, a young science,

principles that facilitate or hinder discovery, that control the mind in its perpetual quest for new knowledge. Nevertheless, some of the basic principles are known.

It is obvious that discovery often waits until the times are ready for it. Then it comes, perhaps not easily, but often to more than one man at the same time. Both Briggs and Napier invented logarithms independently in 1614, and their work had been anticipated in 1611 by an obscure investigator. Why three men then and not someone else long before? Adams and LeVerrier both discovered the planet Neptune in 1845 by predicting its position from the irregularities of the planet Uranus. This must have been the right sort of thing to be doing in 1845, but was 1830 too early? Charles Darwin and Alfred Russel Wallace both

formulated the same theory of evolution in 1858; although Darwin had worked out his theory through long years, it was still unpublished when Wallace sent his own paper to Darwin for comment.

There is something in the times that facilitates discovery and invention. Goethe called it the *Zeitgeist*. Some people call it the climate of opinion or of thought. Everyone thinks and speaks and writes under its influence; it is an enormous body of fact, opinion, prejudice, and attitude, the most plagiarized unwritten scripture in existence. The first principle in the psychodynamics of the history of thought is this unconscious facilitating effect of the *Zeitgeist* on belief and action.

But the *Zeitgeist* has a dual role. It pushes one idea into bloom but nips another in the bud. It is hard to think an idea before the times are ready for it; and when an independent soul actually does so, often he does not fully understand the new thought himself, and usually no one else accepts it. In 1604 Kepler concluded correctly that the crystalline body in the eye is a lens that casts an image of the outside world on the retina, an image that is reversed, right for left and up for down. Why, he asked, do we then see right side up when the information furnished the brain is upside down? The *Zeitgeist* said—and had been saying ever since the third century B. C.—that perception is the little man inside the head receiving the images that the outside world sends to him along the nerves, and this view is still to be found in common sense. Various wise men during the last three hundred years have seen, however, that the inversion of the retinal image does not matter, that one quickly finds out that excitation of the top of the retina means that its data come from the bottom of the outside world. The point here is that every one of these wise men had to fight the persistent *Zeitgeist* to substitute their rather simple wisdom for the simple error of common sense. Kepler himself never got past the *Zeitgeist*, but continued to believe that he had found a puzzle in need of explanation.

Independence, Prejudice, and Pride

Sometimes a man's greatness lies in his ability to resist the *Zeitgeist*. When in 1850 Helmholtz tried to measure the speed of conduction by the nerves, everyone else was sure that this feat could not be accomplished: that the speed of nerves must approximate the speed of light, that one does not will to wiggle his finger and then wait for the impulse to arrive and the finger to move. Another principle is what has been called the scientist's motivational predicament. The predicament is that humility

helps progress and egoism hinders it; but at the same time, egoism helps and humility hinders.

Humility's companion is objectivity, which is part of the scientific attitude itself. Science eschews prejudice and bias, and—formally at least—personal involvement. One advantage of the experimental method is that its logic helps the investigator escape from his own preferences in interpreting his results. He tries to be like posterity, the posterity that assesses yesterday's mooted problems with the assurance of having no investment of its own at stake. So much



can prestige hinder progress that sometimes, the physicist Max Planck said, a theory will hang on after it has been discredited, continuing in use as long as its author lives.

The other horn of this motivational dilemma is that egoism—prejudiced, biased, self-assertive ego-involvement—is what usually furnishes the drive to get research done and the resulting papers published. There is nothing like a sense of rightness—or righteousness—to drive a man to work, even when posterity is going to turn thumbs down on his great endeavor. This rule holds for the isolated egoist, for the tightly knit school or in-group with its own special vocabulary that binds its members together and makes them almost unintelligible to out-groups, and for the great movement that characterizes a nation or a half-century. Attack and controversy always strengthen the will to achieve. Where has the wisdom of humility gone now, as we face the confident genius or the entrepreneurs of a new movement?

The motivational predicament is, of course, soluble in the large group and in the historical process, where there is a division of labor. One man's objectivity may then offset another man's drive. The basic contradiction can be partly resolved in the individual by a fluctuation of his attitudes: he can check his own enthusiasm long enough to take a critical look at it and experience pride when he succeeds in proving himself wrong. So it comes about that science gets along, driven and checked, in spite of this kind of difficulty.

Closely related to egoism is the dedication of so many successful scientists, the compulsive ones who keep confusing work with play, who look forward eagerly to a "vacation" so that they can

"work." Compulsion is not, however, identical with egoism. A humble compulsive may labor for years and produce as wise and judicious an assessment as ever there was. Genius is not a capacity for taking pains, but taking pains can be very effective though genius be lacking.

Knowledge Helps Too

Certainly erudition helps the scientist. He whose memory is well packed with many items of many kinds and who can scan his stock quickly when something new is needed will help science most if other things are equal. Genius may be the habit of having useful insights, but insight depends on erudition. The boy in the experiment on productive thinking took one look at the task in mental arithmetic, $39 \times 41 = ?$, and said "1599." How could he know so quickly? He noted that $39 \times 41 = (40-1)(40+1)$, that the product of the sum and difference of two numbers equals the difference of their squares, so $1600-1 = 1599$. He was erudite. It is improbable that Archimedes, untutored in algebra, could have done so well.

If new insights are to occur frequently in science, then the investigators ought to be exposed as often as possible to other cultures, to other habits of thought. To occur with maximal frequency, new insights need more help than they can get from individual erudition, for they come most often when scientists can escape the conventionalizing restraints of the *Zeitgeist*. Interdisciplinary research tends to do just that. So does the internationalization of science.

From all this it follows that crash programs of research are not too likely to be successful, a fact that the public has failed to understand ever since an intense need produced the atomic bomb a few years after the need arose. Those years, however, followed several decades of deliberate basic research. The crash attack on cancer moves ahead but slowly. Seldom can we hurry history. Money will buy time, and history needs time, yet it is doubtful whether with twice the money and twice the manpower, the inhibiting *Zeitgeist* can move ahead twice as fast.

Science would be much better understood, even by investigators themselves, if this psychological frame of reference were always kept in mind. It is much too simple to think of scientists as right or wrong, as clear or muddled, as prejudiced or objective. Each individual effort is an eddy in the total stream of science; and we shall become much wiser, get much nearer the truth, if we remember always to look at the stream as a whole and notice the eddies only as they contribute to the sweep of the main current. "*La science*," said the physiologist Flourrens, "*n'est pas; elle devient*."

BRAND OLD IDEAS: Phi Beta Kappa in the Ads

A LUDICROUS advertisement appeared in a number of college newspapers a year or so ago. Drawn in cartoon style, it pictured a student with heavy spectacles and an immensely high forehead announcing solemnly, "_____ brand shorts made me Phi Beta Kappa!" Although the dean thinks he is a genius, he explains in smaller print, and his fellow students think he must have cheated, *he* knows that his success was due to the comfort of his shorts, which made it possible to sit up late at night to study. The assumption that students of Phi Beta Kappa caliber rarely sharpen their wits with sleep turned up later in another ad; placed by the maker of a caffeine pill, this one featured a "Phi-Beta" pack of thirty-five tablets.

Such misuse of Phi Beta Kappa's name always prompts a strong letter of protest from the national office, and this usually prevents a repetition of the offense—by that particular advertising agent. But the United Chapters' file folder, which is labelled "Phi Beta Kappa—Misrepresentation," still bulges.

Misleading newspaper stories describing the "new chapter of Phi Beta Kappa" at a junior college, or announcing the election of somebody's daughter in her sophomore year, are another kind of misrepresentation, usually caused by underinformed reporters or overzealous college news bureaus. Then there are unconscious misrepresenters, like the woman—not a member of Phi Beta Kappa herself—who wears the keys of other members of her family on a charm bracelet. And there is also the perennial handful of deliberate misrepresenters, like the television comedian who tried to spread the word of his Phi Beta Kappa membership until the national office straightened out his publicity agent on that score.

The bulge in the file, however, is primarily the result of a steady flow of advertisements using the Society's name or a facsimile of the key. "Phi Beta Beautiful" was the lead-in of an ad a few years ago for the right clothes for the college girl; a drawing of the key appeared alongside for the benefit of anyone who might not otherwise get the reference.

The problem was more difficult before trade-mark protection was secured for the key as well as for Phi Beta Kappa's Greek-letter name. In 1928 the Society had obtained a twenty-year registration of its name, but no protection was available for the key until a new trade-mark law was passed in 1946. Hence the United Chapters could do nothing but protest when other organizations offered obvious imitations of the key. In some cases the design of the imitation was

changed, but more often it was not. In the thirties, for example, a lengthy but apparently fruitless correspondence was carried on between the Secretary of the United Chapters and the sales manager of one of the major automobile manufacturers about a gold key the company was offering for excellence in salesmanship.

In 1952 the legal counsel of another honor society spotted a notice in a Patent Office publication that a shoe company had applied for trade-mark registration of the name "Phi Bates," to be used for men's shoes. Since "Bates" was the company name, prefixing it with "Phi" was not particularly far-fetched. But the United Chapters was naturally less than enthusiastic about it, and filed opposition proceedings. The Society contended that the public associates the phrase "Phi Bete," with Phi Beta Kappa, and that its interests and reputation would be damaged by the use of the phrase for a commercial product. (One exhibit that was kept handy to support

this contention if the need arose was a story that appeared in the *Ladies' Home Journal* in the early forties entitled "Nobody Loves a Phi Bete.") Astute legal advice and good luck both worked in Phi Beta Kappa's favor, and the application from the shoe company was turned down by the Patent Office.

The proceedings prompted the United Chapters to obtain trade-mark protection under the 1946 law, which permitted registration of the key design as well as of the name, and also affords protection permanently, rather than for a limited period of time. It is this registration that has helped in recent years to discourage repetition of infringements. Recently a New England jeweler began offering high-school students a key "similar to the Phi Beta Kappa key." And similar it was. But after an interview with Phi Beta Kappa's attorney, he agreed to redesign his medal.

The Phi Beta Kappa Senate asks members to report misuse of the Society's name or insignia, so that the national office can take action to put a stop to such infringements.

Elected Before the Uniting of the Chapters



Miss Sarah Van Sicklen Brownell, who at the age of 103 may be the oldest living member of Phi Beta Kappa, was elected at the University of Vermont in 1877, and was among the first eleven women admitted to membership in the Society. In 1880, traveling mostly on horseback, she took the census of her native town of Williston in Vermont, and later served in the decennial census bureau in Washington. The picture at left was taken the year she graduated from college; the one at right when she was 90 years of age. "I hope to live long enough," she says, "to carry out my own will. Then it will be done right."

The Alpha chapter of Vermont was the first to admit women, electing two in 1875. The chapter at Wesleyan University, where women were accepted for undergraduate study from 1872 to 1912, followed suit in 1876. Six years later the charter members of the chapter being established at Cornell University discussed the question when they drew up their constitution, and made women eligible for candidacy. By the time the chapters were united in 1883 there were twenty-six women among the members of the Society.

The Book Committee Recommends . . .

Humanities Guy A. Cardwell, John Cournos, Robert B. Heilman,
(Philosophy, Literature, Fine Arts) George N. Shuster
Social Sciences Robert C. Angell, Frederick B. Artz, Robert K. Carr,
(History, Economics, Government, Earl W. Count, Lawrence A. Crenin,
Sociology, Education) Louis C. Hunter, Norman J. Padelford, C. Vann Woodward
Natural Sciences Ralph W. Gerard, Kirtley F. Mather

Robert K. Carr

SUBURBIA: Its People and Their Politics. By Robert C. Wood. Houghton Mifflin. \$4.

The problem of "the exploding metropolis" is here examined in an important study that is at the same time rigorous and hard-hitting, literate and humane. Although the author is himself a resident of one of the most idyllic and archaic suburbs in the land, his view of the mushrooming satellite towns surrounding today's decaying "central city" is a sharply critical one. Regarded as the products of theory and sentiment, and without economic reason or technological basis for existence, they are judged to be fundamentally inconsistent with sound political and cultural organization of urban life. The author sees a centralized "big" or "master" city as more conducive to good government, individual freedom, and social progress than is "urban sprawl." No brief summary can do justice to this challenging book.

THE ROOSEVELT REVOLUTION: 1932-1952. By Mario Einaudi. Harcourt, Brace. \$5.95.

This is an important addition to the growing literature about the Roosevelt Era by a man who was born and raised in the European intellectual tradition but is now an eminent American political scientist. The New Deal is viewed as a pragmatic, orderly, meaningful political development that perfected and saved democratic capitalism in the United States. Delightfully written and carefully reasoned throughout.

THE MAN IN THE WHITE HOUSE: His Powers and Duties. By Wilfred E. Binkley. Johns Hopkins. \$6.

This is the latest book by a scholar who has devoted a lifetime to the study of the American presidency. The approach is primarily historical, since the author believes with Grover Cleveland that "Before I can understand a political problem I have got to know how it originated." The presidency is viewed as one of man's greatest political achievements—invented in 1787, but continuously strengthened and perfected through seventeen decades of experience.

EDUCATION AND MILITARY LEADERSHIP. By Gene M. Lyons and John W. Masland. Princeton. \$5.

This much needed study of ROTC suggests that in these days of maximum national security needs American colleges and universities have an inescapable duty to help train tomorrow's military leaders; that present ROTC programs are misfiring because of undue emphasis upon professional military training on the campus; and that a better division of labor would see colleges concentrating on giving ROTC students broad educational training while the military services supplied essential professional training

primarily during vacation periods and in postgraduate programs. A book that may well have an important impact on the changing patterns of higher education.

NEW ENGLAND STATE POLITICS. By Duane Lockard. Princeton. \$6.

The politics of six contiguous but highly different states are carefully examined. A significant book by a man who makes effective use of scholarship and direct personal experience in state politics.

Guy A. Cardwell

THE ECCENTRIC DESIGN: Form in the Classic American Novel. By Marius Bewley. Columbia. \$4.

Following up his earlier study along similar lines and of comparable high interest (*The Complex Fate*), Mr. Bewley examines what he believes to be the distinctively American situation and the most productive national tensions exhibited in Cooper, Hawthorne, Melville, James, and Fitzgerald. His framing conditions are useful, though limiting; his analyses are often excitingly original; and his incisive comments on previous critical scholarship are usually, though not always, appropriately wounding.

THE CORRESPONDENCE OF HENRY DAVID THOREAU. Edited by Carl Bode and Walter Harding. New York University. \$12.50.

Nearly all extant letters by and to Thoreau are gathered in this first serious effort at a comprehensive collection and an accurate text. Earlier volumes by Emerson and by Sanborn are entirely superseded, and some interesting letters are made readily available for the first time.

THE VISION OF TRAGEDY. By Richard B. Sewall. Yale. \$4.

Some lameness and pedestrianism and a decided superfluity of parenthetical references to authorities may be forgiven in a volume which is frankly an outgrowth of undergraduate lectures, particularly when the book is a useful résumé of attitudes towards tragedy. The tragic vision is considered in widely diverse forms from the Book of Job to *Absalom, Absalom!*

THE AUTOBIOGRAPHY OF MARK TWAIN; Including Chapters Now Published for the First Time. Edited by Charles Neider. Harper. \$6.

Mark Twain's papers have been a rich mine for a series of editors, but key veins have at times been worked ineffectively. The autobiographical materials have offered extraordinary difficulties now to three editors. This volume adds "nearly 40,000 words" to the best of the selections printed earlier by A. B. Paine and by Bernard DeVoto; but the book is regrettably under-edited, and a fourth try at editing the autobiography will be needed. Nevertheless, admirers of Mark Twain will be fascinated by this new revelation of his effervescent, extravagant, many-faceted personality, wild and whirling as his words sometimes are.

THE CURSE OF THE MISBEGOTTEN: A Tale of the House of O'Neill. By Crosswell Bowen with the assistance of Shane O'Neill. McGraw-Hill. \$4.50.

The journalistic comments on O'Neill's plays are annoying, detracting from a full, candid, and apparently accurate account of a sad, tangled family history. The story brings in O'Neill's parents, his wives, his children, and assorted related characters. The themes are desperate ones: intense subjectivity, insecurity, withdrawal, disease, drugs, drink, and suicide. Grim and depressing though the details of the story are, they are essential to an understanding of Eugene O'Neill; and they belong to the pattern of an era.

Also Recommended:

HEIRESS OF ALL THE AGES: Sex and Sentiment in the Genteel Tradition. By William Wasserstrom. Minnesota. \$4.

GEORGE W. CABLE: The Northampton Years. By Philip Butcher. Columbia. \$6.

Earl W. Count

GODS AND MEN: The Origins of Western Culture. By Henry Bamford Parkes. Knopf. \$7.50.

Professor Parkes sets forth most readably the developmental course of those basic ideas and attitudes which, from the lithic ages to the emergence of Christianity, have shaped the world-view of western culture. The history of this ethos is best grasped from its sculpture, painting, architecture; and its literary monuments, when at last these come to be. The great sayers—prophets, tragedians, philosophers, theologians—of the ancient cultural tradition in which we continue to move, the author treats in astoundingly compact yet satisfying reviews. Happily, he is sensitive to the paradox of myth: profound truth more enduring than the symbolisms that couch it, yet discoverable only by minds that are at home in such symbolisms.

Beyond this disciplined insight into the meaning of history, he has not chosen to go; he aims at no original philosophy or study of history. Understandably, as a historian he is more at home among written and sculpted documents than among the eventless tracteries of anthropologist and archaeologist. If this strikes the social scientist as tending to bias the account in favor of great individuals rather than the processes that made them, it reflects less on the author than on

THE KEY REPORTER

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the state of our present knowledge about the past; archaeology is only beginning to reach the position where it can speak with authority on unwritten but basic cultural processes, and pass judgment on the reliability of literary sources instead of being only an ancillary commentator on them.

An account that sweeps so widely and so rapidly cannot avoid flaws altogether; undoubtedly its author has not expected to satisfy all specialists within the particular fields he must tread. But it would be ungrateful to press these minor points. This book is the work of a master—succinct, balanced, lucid, important. It narrates profound and essential things reliably and simply.

THE HARMLESS PEOPLE. By Elizabeth Marshall Thomas. Knopf. \$4.75.

Bushmen call themselves Harmless People. Long before the dawn of human memory, they lived undismayed among the growths and the beasts of the south African landscape; but Bantu and European herdsmen and farmers have been to them as predators, and they have sought refuge where only a resourcefulness that is genius can live.

To walk, civilized, amidst the primal naïveté of Stone Age people; to be friend and befriended; to appreciate their humor, their tragedies, their elemental wisdom, the bigness of their small events—one must be not only an anthropologist by training or by association, but also an artist; and Mrs. Thomas has earned the title well. Set within the gnarled, inviolate majesty of veld and desert is humanity's essential dignity. Her story is informative and beautiful.

Also Recommended:

LEGEND BUILDERS OF THE WEST. By Arthur M. Young. Pittsburgh. \$4.

NATIVE PEOPLES OF SOUTH AMERICA. By Julian H. Steward and Louis C. Faron. McGraw-Hill. \$9.

Louis C. Hunter

LITTLE BUSINESS IN THE AMERICAN ECONOMY. By Joseph D. Phillips. Illinois. \$3.50

This careful study is of more than ordinary interest for its illumination of an area in which folklore flourishes. Phillips presents a concise economic and, in some degree, social analysis of conditions and trends in what is by far the largest segment of the free enterprise system, a segment that exhibits much less freedom and far less enterprise than we have been wont to believe. "Little" is one level below "small" business as the term is customarily used.

GREAT BASIN KINGDOM: An Economic History of the Latter-day Saints, 1830-1900. By Leonard J. Arrington. Harvard. \$9.

An absorbing account of the economic ideals, institutions, policies, and practices of the Mormon community as these evolved during the extraordinary socio-religious experience culminating in the settlement and development of Utah. Armed with a conviction of righteousness, a great fund of practical sense, and a talent for organization, the Mormons devised highly collectivistic and very successful methods for survival and growth in a hostile environment.

THE AGRARIAN ORIGINS OF MODERN JAPAN. By Thomas C. Smith. Stanford. \$5.

Although the title of this volume is not without its appositeness, it hardly prepares one for the main substance of the monograph. It is devoted to an admirable account of the economic and social structure and institutions of the agrarian village society of the old Japan, and the changes in this society from the seventeenth to the mid-nineteenth century.

A HISTORY OF TECHNOLOGY. Volume V, The Late Nineteenth Century, c 1850 to c 1900. Edited by Charles Singer et al. Oxford. \$26.90.

A HISTORY OF WESTERN TECHNOLOGY. By Friedrich Klemm. Translated by Dorothea Waley Singer. Scribner's. \$6.50.

These two volumes contrast sharply in coverage and treatment alike. The first is the concluding volume in the massive series bearing this title. It contains thirty-four



chapters by nearly as many authors, covering a wide range of matters, from food preservation and aids to navigation, to explosives, photography, prime movers, textiles, and tunnels. It offers no master synthesis, but presents much information and some interpretation on technological innovation. In the second book the author employs contemporary documents to trace the changing problems of technological innovation from the Graeco-Roman period to our day. The purpose is to illuminate the course of technology rather than to describe it in any detail, with emphasis upon the interrelations of technology and general cultural change.

THE ART OF NAVIGATION IN ENGLAND IN ELIZABETHAN AND EARLY STUART TIMES. By D. W. Waters. Yale. \$12.50.

This volume is described as intellectual history, but it is hardly less a contribution of importance to technological and economic history. Despite rather rough going for the layman in portions, this book offers rewarding fare to those interested in the evolution of modern communication.

Also Recommended:

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A HISTORY OF SCIENCE: Hellenistic Science and Culture in the Last Three Centuries B.C. By George Sarton. Harvard. \$11.

This choice book was completed by its peerless author only a few days before his death in 1956. It rounds out his treatment of ancient science, and, like the first volume in the projected series, it is a masterpiece of erudition and exposition.

OUR EARTH. By Arthur Beiser. Dutton. \$3.25.

This is "science for the layman" at its very best. The International Geophysical Year has made geophysics a household word. Here one of the participants in that worldwide project tells what the excitement is all about. In concise, lucid chapters he describes the properties of the earth, tells how some of the secrets of its interior have been made known, and explains how its behavior is at last beginning to be understood.

FORERUNNERS OF DARWIN, 1745-1859. Edited by Bentley Glass, Owsei Temkin and William L. Straus, Jr. Johns Hopkins. \$6.50.

THE LIFE AND LETTERS OF CHARLES DARWIN. Edited by Francis Darwin. Basic Books. Two Volumes. \$10.

The first of these additions to Darwiniana in this centennial year is a collection of admirable essays which provide a setting whereby to judge aright the great achievement of 1859. They brilliantly establish the importance of the descent of ideas in relation to the descent of species.

The second is a reprint of the biography prepared by Darwin's son and first published in 1888. It has long been out of print, and its publication is a service to all who are interested in history, biography, or science.

LISTENING IN THE DARK. By Donald R. Griffin. Yale. \$7.50.

A fascinating account of the amazing ability of bats to orient themselves by echolocation, a process analogous to sonar navigation, in which bats emit and receive sound waves inaudible to the human ear.

Also Recommended:

THE EVOLUTION OF NORTH AMERICA. By Philip B. King. Princeton. \$7.50.

TECHNOLOGY IN AMERICAN WATER DEVELOPMENT. By Edward A. Ackerman and George O. G. Löf. Johns Hopkins. \$10.



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J. M. SYNGE: 1871-1909. By David H. Greene and Edward M. Stephens. Macmillan. \$6.75.

At long last an authorized biography of the greatest poetical dramatist to write in English since the Elizabethans, indubitably the particular star of the Irish Renaissance. Papers and original correspondence made available for the first time make this an extremely valuable and readable contribution, not only to the history of the theater, but also to that of Irish literary genius.

THREE JAPANESE PLAYS: From the Traditional Theatre. Edited by Earle Ernst. Oxford. \$6.

The three long Introductions, each interpreting a form of traditional Japanese drama—the No, the Doll Theater, and the Kabuki—are singularly illuminating and not to be neglected by lovers of the theater. In each case, the play that follows gives a practical demonstration of the thesis.

GOTHIC EUROPE. Introduction by Kurt Gerstenberg. Picture commentaries by Helmut Domke. Macmillan. \$8.50.

The miracle of the Gothic is revealed at its finest in magnificent pictures (and brief text), in which attention to detail stresses the beauty and provides a startling and practical demonstration of what collective creation, moved by unity of purpose in an age of faith, achieved through long decades.

VAN GOGH. By Frank Elgar. Praeger. \$5.75.

This book is rich in substance and interest. All we need to know of Van Gogh is here. Particularly impressive is the number of illustrations and their quality. It is clear that Van Gogh reveals his genius no less in his drawings than in his exuberant oils.

CHINESE ART. By Mario Prodan. Pantheon. \$6.50.

AN INTRODUCTION TO THE ARTS OF JAPAN. By Peter C. Swann. Praeger. \$8.50.

As in China, so in Japan the term *art* includes all pictorial and plastic manifestations in the quest for harmony. With so important a principle in common, the two volumes complement each other. In both, the illustrations are superb.

IVAN MESTROVIC, Sculptor and Patriot. By Laurence Schmeckebier. Syracuse. \$10.

In 1915 I had the good fortune to see an exhibition of this artist's work in London, and the impression it made on my mind was so powerful that I have never forgotten

it. I am happy to renew the acquaintance in this excellent volume, commemorating the sculptor's seventy-fifth year. The reproductions are excellent and testify to the artist's genius, noted fifty years ago by Rodin. No lover of sculpture can afford to overlook it.

Also Recommended:

INDIA AND MODERN ART. By W. G. Archer. Macmillan. \$8.

PUCCINI: A Critical Biography. By Mosco Carner. Knopf. \$7.50.

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FRANCE, A Modern History. By Albert Guérard. Michigan. \$8.75.

A brilliant synthesis of the story of French civilization from the Celts to de Gaulle, the summation of a lifetime of study, by one of America's most gifted scholars.

THE BULL OF MINOS. By Leonard Cottrell. Rinehart. \$4.50.

A masterly examination of the archaeology of early Greek civilization.

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A brilliant study, based on all the evidence collected since Gibbon wrote in the eighteenth century, of the last centuries of the Roman Empire.

THE KING'S WAR. By C. V. Wedgwood. Macmillan. \$7.50.

A sequel to *The King's Peace*. The two volumes treat the story of Charles I and the Puritan Revolution, and are impressive as works of learning and of literature.

MACHIAVELLI AND THE RENAISSANCE. By Federico Chabod. Translated by David Moore. Harvard. \$5.50.

A first-rate work that reevaluates not only Machiavelli, but the whole meaning of the Italian Renaissance.

A SHORT HISTORY OF GERMANY, 1815-1945. By E. J. Passant. Cambridge. \$3.75.

Originally prepared for the British Naval Intelligence during the Second World War, this is the best short introduction to the background of the most prosperous state in present-day Europe.

UNITY, 1942-1944. The War Memoirs of Charles de Gaulle, Volume II. Simon and Schuster. \$6.

Centering his attention on the three critical years that led up to the liberation of Paris, de Gaulle proves himself a first-rate writer.

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MEMOIRS OF A RENAISSANCE POPE: The Commentaries of Pius II. Edited by Leona C. Gabel. Translated by Florence A. Gragg. Putnam. \$6.

An abridgement of one of the most interesting autobiographies of early modern Europe now made available in a careful and very readable English version; an important addition to works on the Renaissance.

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A New Member Interprets Phi Beta Kappa

This speech accepting membership in Phi Beta Kappa was given last February by Charles Raymond Babineau in behalf of the initiates of the Alpha of Maine chapter at Bowdoin College.

In this brief acceptance address, I would like to reaffirm the proposition that it is the privilege of the young to be critical. It is not unfair for the young to say, "This is a world I did not make."

One of the critical revelations that comes sooner or later to an undergraduate is that objective standards of excellence are not perfect. It comes as perhaps a saddening surprise to realize that an academic community is not necessarily an intellectual Zion, that the ownership of a coveted Phi Beta Kappa key is no necessary guarantee that the owner will not become intellectually sterile. Even the title of Ph.D. sometimes graces a narrow spirit. The accompanying realization is that a great deal of excellence—a great deal of achievement—will come from men who neither have the benefit of a college degree nor membership in such an organization as this one.

But if it is the privilege of the young to be critical, it is also the obligation of the young to support what will withstand the critical examination. St. Paul put it thus: "Examine all things, hold fast

to what is good," (I Thessalonians, 5:21). So it is with our initiation into this honorary fraternity. Notwithstanding the all too human fact that Phi Beta Kappa must necessarily *sometimes* pass over men whose works of intellect and scholarship may some day be prodigious, and occasionally include a few who are less deserving, a critical glance at this society makes it clear that it is one worthy of high respect, for two significant reasons.



First, its own fine history and the long record of distinguished members. And second, the fact that its ideal is most praiseworthy: the encouragement of good scholarship.

Also, if it is the privilege of the young to be critical, the critical eye must be turned inward. We see that we are, as yet, unproven. The world that we are in the

process of making already shows signs of being marked by human fallibility.

The examination completed, it is for these reasons then that we accept with personal humility, membership in a society of proud reputation.

TO THE EDITOR

EVERY SPRING I see a fresh crop of students receive new Phi Beta Kappa keys. And every spring I also notice how quickly these keys disappear from sight, for our social order still seems to require young people to hide signs of intellectual ability. The bright new keys, therefore, are slipped into dresser drawers for fear of social ostracism. Why our culture encourages the wearing of foot-high letters on the bosoms of athletes, or the dangling of gold balls or activity keys from appropriate chains, and at the same time frowns on the "vulgar display" of symbols of scholastic excellence is a complete mystery to me.

Could the acquiescence of members of Phi Beta Kappa to this social dictum be part of the reason it continues? Somehow I fail to see why a Phi Beta Kappa key should not be worn by its recipient as proudly as Mr. All-America wears his gold football.

MELBA P. BOWERS

Cincinnati, Ohio

Science and the Meaning of its History
By Edwin G. Boring
Brand Old Ideas: Phi Beta Kappa in the Ads
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