

# THE Key REPORTER

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## AID PROGRAMS FOR THE GIFTED

*Private and Public Sources Establish National Grants To Encourage Excellence in Talented Young Students*

OUR PROGRESS as a nation, the welfare of our citizens, and our vitality as a democracy are now more than ever before intimately associated with how fully this country uses its intellectual and creative resources. After decades of complacency and disinterest for learning in all fields, our citizens have finally become aware of the need to develop and encourage the capabilities of promising young men and women. Our domestic needs and endless international challenges make it imperative that we use our native talent effectively and thoroughly. To encourage the pursuit of excellence and to assist able students, numerous scholarship programs, sponsored by both private and public funds, have been established.

One of the best-known of these projects was initiated in 1955 through grants from the Ford Foundation and the Carnegie Corporation of New York—the National Merit Scholarship program. The objectives of this program are three-fold:

To discover and recognize exceptionally talented young people, and to encourage and assist them to obtain a college education.

To work with corporations, foundations, associations, and individuals in establishing their own scholarship programs which would maintain the identity of each while utilizing the services of the National Merit Scholarship Corporation.

To conduct research related to the corporation's work and to publish the results for the information of educators and the public.

The search for the talented is conducted each year in the nation's public, private and parochial high schools by means of qualifying tests. This year, after a twelve-month competition in which 15,000 secondary schools participated, nearly 1,000 students throughout the country were named recipients of four-year Merit Corporation Scholarships to colleges of their choice. The

winners were selected from a group of nearly 10,000 finalists who had attained high scores on the qualifying tests and a second examination. The total value of the awards for 1961 is estimated at \$15 million.

Each year a wide range of large, medium and small-sized companies and other organizations sponsor Merit Scholarships. More than 130 business corporations and foundations, professional associations, and individuals participated as sponsors this year for 550 recipients. The remainder of the awards were presented on behalf of the National Merit Scholarship Corporation by means of its founding grants.

Since the inception of the program, almost 5,000 students have been named to paying Merit Scholarships and approximately 700 awards have been given in

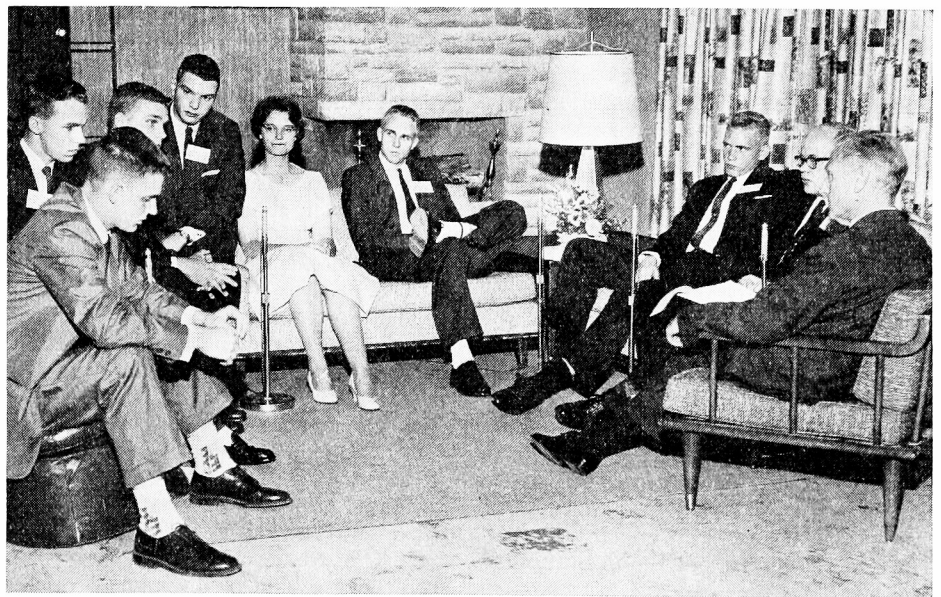
recognition of high achievement, although these students receive no financial assistance from the program.

The funds provided with each Merit Scholarship—except the honorary ones, which carry no stipend, vary from a minimum award of \$100 to a maximum of \$1,500. Most of the scholarships are accompanied by a supplementary grant to the scholar's selected college.

Corporate gifts to higher education are not new, of course, but it is only recently that they have started to gain momentum. Many well-known corporations—General Motors, Du Pont, Westinghouse, Standard Oil of California, General Electric—operate independently of the NMSC, and numerous companies conduct programs to supplement contributions to the Merit program.

Federal funds are also being made available to aid talented but needy students, who increasingly are realizing their ambitions to go to college. The National Defense Education Act, passed in 1958, with its student loan program, is a landmark in this field.

*(Continued on back cover)*



**Merit Scholars on Television**

*On a television program, Barry Bingham (far right), president and editor-in-chief of the Courier-Journal and the Louisville Times, discusses education with scholarship winners. Public recognition of academic achievement helps to foster respect for intellectual excellence. Last year, 159 of the 461 graduating Scholars were elected to Phi Beta Kappa. (Photo reproduced by permission of the Courier-Journal and Louisville Times.)*



# SCIENTISTS AND LAYMEN

By POLYKARP KUSCH

EVERY FACET of our lives has been, in one way or another, fashioned or modified by science and by a derivative technology. Without some perceptive understanding of science it is impossible to live successfully in the modern world and to contribute to the growth of our society. It is essential to the existence of a world in which the human spirit may grow and flourish for all members of our society to have an increased awareness of the nature of science, of its historic role in changing the course of our civilization, of its content, of its power and of its limitations. It is as important for a scientist to cultivate this awareness in his fellow men as it is for him to find new knowledge and to conserve the old by transmitting it to a new generation of scientists.

I cannot think of an important human need that cannot be satisfied by present scientific knowledge or by technology; science has given us a great knowledge of nature and a great power to use it. We have the capacity to improve the lot of man and the capacity to destroy him. The important issue is the wise use of knowledge and power to create a world in which each individual may live a life of dignity, in which each man may find his highest destiny. It is the *use* that we make of present scientific knowledge and power, rather than the knowledge and power themselves, that will make a qualitative change in the nature of our society. We may have new sources of power, further advances in communication techniques, greater control of disease of the mind and body, new sources of the things necessary to life, food, clothing, housing. None of these is likely to alter, other than in a quantitative way, the structure of our lives, either in their external or internal aspects, the mind, the emotions and the perceptions. A wise use of the knowledge depends on a general understanding of science by a large segment of society—laymen as well as scientists.

A concern with the interaction of the scientist and the rest of the world, whether the world of politics, the world of economics or the world of the arts, usually has been one in which the scientist is representative of the institution of

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This article is based on the Phi Beta Kappa-Sigma Xi lecture that Dr. Kusch delivered before the American Association for the Advancement of Science last December.

science and interacts with an institutionalized world. Even in our classrooms, the scientist represents a discipline and talks to students in their capacity as members of an undergraduate body. The formal, institutionalized contact is an important one, and I am not at all sure that scientists have made the best possible use of it.

Very little has been said, though, about the interaction of the scientist as an individual with the layman as an individual. A comprehension of "what science is about" may come through conversation related to science but not necessarily concerned with the detailed content of science. The cultivation of the casual social contact may do more toward increasing the scientific sophistication of the layman than a volume of lectures, books or television shows. The personal contact may allow the scientist and the layman to penetrate into each other's mind, a feat only rarely, perhaps even miraculously, achieved in a lecture or a formal course.

I once talked to a practicing scientist about my intention of urging that the scientist use even social occasions to somehow instill in a body of nonscientific

*In a century when it is crucial to have man attuned to a science-dominated world, the scientist must be creator, conservator and interpreter of scientific knowledge for the community at large.*

acquaintances some perception of the nature and meaning of science, perhaps even of the content of science. I was told that in casual social contacts he never talked about science to laymen who "weren't ready for it." I am sure that the comment was meant more nearly as a quip than as a statement of well-thought-out position. Still, an unwillingness to talk to laymen is prejudicial to the achievement of an objective whose importance is almost universally recognized. If no attempt is made to tell a man "not ready for it" something about science, if no effort is made to fire his interest and curiosity, how will he ever get ready to think seriously about science? Although formal instruction and serious private study give a kind of disciplined training not likely to be inspired by the more relaxed social contact, there is a certain kind of knowledge that does not come readily from formal courses and from books.

The scientist in the modern world plays a role that suggests to vast num-

bers of people access to knowledge, power and wisdom. The future of the individual and his civilization is often believed to be overwhelmingly with science and its practitioners. Surely the scientist has the obligation to explain himself, precisely because he is assumed to have a dominant role in the affairs of men. The layman's declaration of his desire to know more about science and its implications is an honest one, but he barely knows what questions to ask to discover the relevance of scientific knowledge to the problems with which he must deal.

We would not be scientists if we did not believe that the knowledge of science enlarges the mind, opens up new vistas to enrich the lives of men, that the power that science gives over nature may serve important and valid human purposes. But we have impaired the ability of those not trained in science to understand it by too great an emphasis on the power of science without an occasional digression on its limitations.

The limitations of science are, of course, implicit in the important state-

ments that science makes. The laws of physics, for example, describe what nature does or may do or may be compelled to do and, therefore, describe what nature cannot do or cannot be compelled to do. Science fails to make pronouncements about certain kinds of things, such as those that fall within the range of value judgments. That science fails to make these pronouncements may imply that it cannot make them or that they are not within the realm of scientific knowledge. Science as such does not make unwarranted claims. Still, it would be of enormous value if the limitations of science were as positively and vigorously discussed with the layman as the authority and power of science.

The lack of a sharp awareness of the limitations of science may be downright dangerous for the layman. Bombarded as he is with news of the triumphs of science, he may feel that science will solve all problems. He may believe that science can produce any miracle neces-

sary to solve a problem, and he often attributes to science a quality of wisdom that is wholly outside of its sphere.

There are limitations of science that should be within the immediate awareness of every man who participates in the life of a science-conditioned world. There is the obvious limitation of things explicitly precluded—the invention, for example, of perpetual motion machines. Even a relatively unsophisticated layman will understand this limitation, although there are other things that science cannot do that are as patently impossible. It cannot continue to produce an adequate food supply for a population that increases exponentially without limit. This limitation is basic to an understanding of the world problem of expanding population levels.

Science is not a form of black magic in which it is necessary only to find the right incantation to achieve a result. This is true even when I substitute for the phrase “right incantation” the more respectable sounding phrase “basic research.” It is foolish to make public policy predicated on the sanguine belief that science will produce an ingredient necessary to the success of that policy.

It is, for example, foolish to engage in a public policy that increases the radioactive burden of man’s natural environment in the belief that science will inevitably find a way to protect man’s genetic heritage from irrevocable damage from radiation. I do not assert that science cannot do this; I do assert that it is not known that science can do this and that we must not proceed under the assumption that it can. To be sure, it might be wise and necessary public policy to do things that increase the radioactive content of man’s environment; the policy should be followed for reasons that have an intrinsic validity and not in an unvalidated belief that science may, somehow or other, protect us from all of the consequences of that policy.

### Individual Value Judgments

An important limitation of science is that it does not, in itself, yield value judgments. Although science contributes knowledge that is indispensable in making value judgments, the excellence of a course of conduct or the wisdom of a policy are not wholly determined by a framework of knowledge. These things depend, in part, on the meaning of excellence and wisdom to the individual. This is based on the moral, religious or ethical values of the individual that have their bases in history, religious tradition and some inner imperative.

It would be dangerous to assume that science alone can produce the bases of a decision, or that it can point to the right course of action as infallibly as it can

predict the occurrence of eclipses of the sun. The belief that science can generate the wisdom to solve every problem that faces man leads man to abdicate his own responsibility in forming his world.

Finally, science alone cannot yield the good life; it alone cannot lend grace and purpose to life; and it cannot, in itself, give a quality of fulfillment to every life. It may contribute to these things through the gift of knowledge and understanding of the world in which a life is lived; it can give those things necessary to the health and well-being of the human organism. A life of dignity and purpose requires more—a range of knowledge, a cultivated perception of many facets of human experience and, above all, a sense of participating in life, a personal dedication to the goal of living a life of meaning. All the artifacts of technology will not make life much better without the capacity to use them with wisdom.

All of us have, I think, been distressed by the occasional statement of the non-scientist that science got the world into its present unhappy condition, and it is up to science to get us out of it. This implies an ascription to science both of a unique influence in determining the course of history and a power to alter it. Both ascriptions are of limited validity. A great many other factors have made our society what it is: the uses that have been made of the knowledge and the power of science, as well as the judgments, the superstitions and the pride and ambition of men. An understanding of the limitations of science will give the layman an increased respect for its strength, and will allow him to make a much more effective use of its power.

Because of the great influence that scientists, through science, have had on the course of events, and because they speak with great authority on matters within the scope of science, it is sometimes thoughtlessly assumed that they speak with equal authority on almost any subject. When scientists speak with great authority on subjects other than science, perhaps on political issues, they are speaking with an authority derived from experience and knowledge of other matters, amplified by their knowledge of science. All of us would decry the ascription to scientists of an authority that they do not possess. I doubt if we publicly state our disavowal of an unearned special authority with sufficient frequency, clarity and vigor. We sometimes describe with the incisiveness and author-

ity of science the technical background of important social, political or economic problems. It is not always clear when we stop speaking about matters in our own special competence and start discussing matters, perhaps with perception and understanding, that are not within the domain of science. I think that the public understanding of science would be enhanced and the public issues to which science is relevant would be much more clearly defined if we were to state with a considerable forcefulness when our statements are within the scope of science and when they are not.

### The Relevance of Science

The layman should be taught to distinguish between the pronouncements of a scientist as a scientist and those he makes as an educated man of good will. In matters that are within the technical competence of science, a layman can hardly hope to dispute the scientist; but in other matters the layman may pit his judgments against those of the scientist. I think that the members of the scientific community should, through their writing, their teaching, their statements to the press, and in their conversations, strive to describe the areas of human thought in which science is supreme and those in which it is not.

The scientist owes to the large society of laymen some kind of an explanation of what he is doing, of what he is about, of the relevance of his activities to the society in which he functions. Science supports our society not only through its technological impact, but in more subtle ways through its influence on the quality of our thought, of our interpretation of experience, of our sense of human history, purpose and destiny. I think that the layman deserves to understand the interaction between science and society, the detailed balancing of mutual support.

The scientific community, to explain its purpose and its social role to the external community, should first have a clear understanding of these things within itself. The more critical layman easily can and sometimes does wonder about the relevance of the enormous volume of scientific publication to the advance of science. He has a point, and many scientists themselves are sometimes assailed by similar doubts. In fact, I sometimes am unable to get from active scientists a more convincing statement of the value of the work that they are doing than that it is fun. That statement is not really good enough for the layman.

I am convinced that the present volume of scientific research is a good investment, no matter how trivial the individual components of the volume may sometimes appear to be. A mastery of





discipline and technique, a cultivation of a background of accumulated knowledge, an enthusiasm in the quest for knowledge, all these are socially valuable things that are brought even by a routine research, which cannot, by itself, be expected to broaden our horizons.

I have never thought well of the suggestion that the economics of the search for knowledge needs to be justified in great detail. Perhaps we can determine the cost of acquiring some specified body of knowledge; it is certain that we cannot assign an economic value to it. Still, in the present era when the taxpayer foots the very large bill for research, when a new piece of apparatus for the physicist may cost a dollar for every man, woman and child in this land, it seems not inappropriate to suggest that the physicist has an obligation to inform the taxpayer.

Precisely what will he personally, his society, his civilization get out of the scientific research? Exactly how may it modify his prospects, his destiny and that of his children? Even if the answers to these questions include nothing more immediate than that science enriches, somehow makes more exhilarating the lives of its practitioners, the layman must be made to feel that this enlargement of life rubs off even on those who make no pretense at being involved in scientific inquiry. All the questions that a nonscientist might ask are reasonable, precisely because he is a member of the society that foots the bill, and the questions deserve an answer. The individual scientist and the community of scientists should use every opportunity, whether it occurs professionally or personally, to try to answer questions about the pur-

pose of science with sensitivity and perceptiveness. Indeed, we should search out opportunities to discuss these things.

### Elements of Understanding

When I first became involved, just after the war, in plans and proposals to improve the level of knowledgeability about science among college undergraduates, I was firmly convinced that an essential ingredient in the cultivation of that knowledgeability is a disciplined study of the content of science. I have very little sympathy for the student who "just can't learn science," for the student who is wholly inept, or asserts that he is, at precise, quantitative thought. Perhaps he ought not to have a college degree; perhaps he ought not to be encouraged to go on into the professions or into the world of scholarship for which the graduate schools prepare him.

Still, none of us would be brash enough to assert that even a well-taught, two-year sequence in the content of science will give a student a real understanding of the role of science in the contemporary world, as a social force, as an economic or military weapon. The course can only instill a background against which these matters may be more effectively explored. From the point of view of the layman, it is more important to understand about science than to understand the content of science. As the layman's understanding of content is generally poor and uncertain, I think we should make positive efforts to try to instill him with some perception of the nature and role of science.

The scientist may feel diffident about discussing the issues peripheral to the con-

tent of science. Those in nonscientific disciplines may feel diffident about discussing them because of a lack of knowledge of science. In the consequent stalemate, ignorance flourishes to the detriment of society. I think we must look primarily to the scientist to break the stalemate, to create a general understanding of science in relation to the larger world. The scientist has prided himself, perhaps with justice, on having a level of nonscientific knowledge that is greater than the nonscientist's level of scientific knowledge. I think he should accept the consequences of that claim and talk not only of science proper, but also of its interactions with the world as a whole.

None of the things that I have said imply that the nonscientific segment of the intellectual community is without obligation in increasing the level of sophistication about science among laymen. Indeed, the nonscientific segment has sometimes been remarkably insensitive to the circumstance that science has historically interacted with every phase of human life, that it does now and will almost certainly increasingly do so. The occasional claim by the nonscientist that the scientist is primarily responsible for interpreting the role of science in human affairs seems shortsighted, and the nonscientist might do well to learn enough about science itself to interpret it, with reference to his own discipline, to the community at large.

There is no escape, however, from the conclusion, much as we may deplore it, that the scientist must serve not only as the creator and conservator of scientific knowledge but also as its principal interpreter, in the broader sense, to the world in which he exists.



### Twenty-Sixth Council to Meet in Utah

*More than 300 delegates will gather on the University of Utah campus in Salt Lake City from August 28-30 for the 1961 meeting of the*

*Phi Beta Kappa Council. Shown here, with the Wasatch Mountains in the background, is the*

*Park Building, administration headquarters for the University and its 10,000 full-time students.*

*Included on the agenda will be the election of senators, president, and vice-president.*

*Delegates will be housed in Baliff Hall, a dormitory near the student union building where the business meetings will take place. Sterling M. McMurrin, U. S.*

*Commissioner of Education, will be the banquet speaker for the concluding session of the meeting.*



# READING

## Recommended by the Book Committee

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. Cremin, Sociology, Education) Louis C. Hunter, Roy F. Nichols, Norman J. Padelford
Natural Sciences .....	Ralph W. Gerard, Kirtley F. Mather

### Robert K. Carr

*Political Science: A Philosophical Analysis.* By Vernon Van Dyke. Stanford. \$5.

An important addition to the small body of contemporary literature dealing with the science of politics in broad terms. Particular attention is paid to a more rigorous use of purposes, approaches and methods in teaching and research in political science.

*The Semi-Sovereign People.* By E. E. Schattschneider. Holt, Rinehart and Winston. \$4.95.

A challenging essay by one of our most thoughtful political scientists, suggesting that American democracy is best viewed as "operational" rather than "organizational" and emphasizing the role of, and problems posed by, group conflicts in the political process.

*Presidential Transitions.* By Laurine L. Henry. Brookings. \$7.50.

A long and careful examination of the four instances in this century prior to the Kennedy administration in which party control of the Presidency has changed. While the system for such transitions is viewed as workable up to now, this study underscores the unsolved aspects of the problem.

*The Cabinet and Congress.* Stephen Horn. Columbia. \$6.

An examination of the relations between Congress and Cabinet members with particular attention to reform proposals that would draw these two agencies of government into closer touch. Seats in Congress for Cabinet members and the "Question Period" proposal are examined with intelligence and an ounce of skepticism.

*The Moulding of Communists: The Training of the Communist Cadre.* By Frank S. Meyer. Harcourt, Brace & World. \$5.

This is another of a long series of "exposés" by ex-Communists. One wishes that we were not so wholly dependent on ex-Communists and F.B.I. secret agents for our knowledge of the inner workings of the Communist apparatus, but these are the people who have access to the necessary data. Such a caveat entered, this is a highly intelligent and useful volume.

*The American Supreme Court.* By Robert G. McCloskey. Chicago. \$5.

*Congress Versus the Supreme Court, 1959-1960.* By C. Herman Pritchett. Minnesota. \$3.75.

*The Quest for Equality.* By Robert J. Harris. Louisiana. \$4.

*Justices Black and Frankfurter: Conflict in the Court.* By Wallace Mendelson. Chicago. \$4.

These four books by leading political scientists provide further evidence of the vital

contemporary role of the Supreme Court in American politics and of the continuing fascination the Court has for some of our able scholars. The McCloskey volume is a first-rate brief historical survey of the Court and its work; Pritchett provides a valuable summary and evaluation of the conservatively-oriented proposals of recent years for Court reform provoked by the Court's liberal decisions; Harris supplies an excellent analysis of the Court's changing view of the validity of race segregation under the equal protection clause; Mendelson views the Black-Frankfurter conflict in rather partisan fashion (Frankfurter is the hero), but his analysis of the bases of this conflict is very useful.

### Louis C. Hunter

*Food, Land and Manpower in Western Europe.* By P. Lamartine Yates. St. Martin's. \$7.

*Modern Land Policy: Papers of the Land Economics Institute.* Edited by Harold G. Halcrow. Illinois. \$8.50.

The first volume is an extraordinarily well-written and competent account, not only of farms, farming and farmers, but of diets and dietary trends in the different regions and countries of Europe, all related to the role and problems of agriculture in economic development. The second is a decidedly mixed collection with numerous papers, ranging from the merely pedantic to several which are both revealing and stimulating, and including both America and Europe in its coverage.

*A New Earth.* By Elspeth Huxley. Morrow. \$6.

An absorbing account of the transformation taking place in Kenya in the face of formidable limitations imposed by nature.

*The Power of the Purse: A History of American Public Finance, 1776-1790.* By E. James Ferguson. North Carolina. \$7.50.

An unusually well-written study that re-thrashes old straw to substantial advantage.

### THE KEY REPORTER

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*The Export Economies: Their Pattern of Development in Historical Perspective.* By Jonathan V. Levin. Harvard. \$6.75.

An excellent general analysis, pointed up by concrete studies of Peru and Burma, of the lopsided and static economic conditions against which so many underdeveloped nations are revolting.

*Population Perspectives.* By Philip M. Hauser. Rutgers. \$3.50.

One of the ablest authorities in the most dismal branch of the dismal science here reviews briefly and without alarmism major aspects of the world population explosion.

*Soviet Economic Power: Its Organization, Growth, and Challenge.* By Robert W. Campbell. Houghton Mifflin. \$4.75.

For the layman as well as the professional interested in the present status and prospects of the Soviet economic system, this well-written and compact (200 pages) volume is outstanding.

*The Future Metropolis.* Edited by Lloyd Rodwin. Braziller. \$5.

If the shape of things to come is not precisely delineated in this symposium, many ideas—stimulating, revealing, confusing and horrendous—are presented and explored.

### Also Recommended:

*Right-Hand Man: The Life of George W. Perkins.* By John A. Garraty. Harper. \$7.50.

*France and the Economic Development of Europe, 1800-1914: Conquests of Peace and Seeds of War.* By Rondo E. Cameron. Princeton. \$10.

*The Modernization of Iran, 1921-1941.* By Amin Banani. Stanford. \$5.

*The Philippines: Public Policy and National Economic Development.* By Frank H. Golay. Cornell. \$6.75.

*The Impact of Collective Bargaining on Management.* By Sumner H. Slichter, James J. Healy, and E. Robert Livernash. Brookings. \$8.75.

*Energy in the American Economy, 1850-1975: Its History and Prospects.* By Sam H. Schurr and Bruce C. Netschert. Hopkins. \$12.50.

### John Cournos

*Curtains.* By Kenneth Tynan. Atheneum. \$7.95.

The British, American, French, Russian and German drama are analyzed by a British critic, the best since Shaw and George Jean Nathan, who has made dramatic criticism an art as well as a science.

*Ancient Egypt.* By Christiane Desroches Noblecourt. New York Graphic Society. \$6.95.

*Classical Greece.* By Nicholas Yalouris. New York Graphic Society. \$6.95.

It would be hard to imagine anything more magnificent in the way of art books than these two volumes, of a continuing series bearing the general title *The Acanthus History of Sculpture*, under the editorship of Herbert Read and H. D. Molesworth. The first deals with the New Kingdom and the Amarna Period, the second with the Elgin Marbles of the Parthenon. There are 32 plates in each book, immense in size and superbly reproduced. The texts are all they



should be. The publishers deserve unlimited praise for the exquisite pleasure these books will provide, at such relatively small cost.

*Rodin's Gates of Hell.* By Albert E. Elsen. Minnesota. \$7.50.

A study of Rodin's most ambitious if unfinished work is long overdue. A Florentine out of his time, he was perhaps the last of the great sculptors who sought to communicate spiritual ideas in plastic form. We should be grateful for this eloquent tribute, accompanied by adequate illustrations.

*Prokofiev.* By Israel V. Nestyev. Stanford. \$8.75.

Translated from the Russian, this is an excellent full-fledged biography of the Russian composer, marred occasionally by the author's inevitable, and perhaps understandable, addiction to Soviet ideology.

*The Arts of Thailand.* Edited by Theodore Bowie. Indiana. \$8.95.

Superb reproductions of architecture, sculpture and paintings, impressive in their portrayal of a high-class civilization, with intelligent prose texts by experts.

*Musical Thought.* By Carlos Chavez. Harvard. \$4.50.

A small but stimulating book that discusses form in music, voicing ideas that might be applied with equal force to literature.

#### Also Recommended:

*Modigliani: A Memoir.* By Andre Salmon. Putnam. \$5.

*On Art and Artists.* By Aldous Huxley. Harper. \$3.95.

*Greek Sculpture.* By Rhys Carpenter. Chicago. \$6.95.

*Benedetto Croce.* By Gian N. G. Orsini. Southern Illinois. \$10.

*The Insiders.* By Selden Rodman. Louisiana State. \$6.95.

*Music at the Court of Frederick the Great.* By Ernest Eugene Helm. Oklahoma. \$5.

#### Frederick B. Artz

*The Scandalous Regent.* By W. H. Lewis. Harcourt, Brace & World. \$4.50.

A first-rate biography of a much maligned but fascinating man, the Duc d' Orleans (1674-1723).

*Daily Life in Florence in the Time of the Medici.* By J. Lucas-Dubreton. Macmillan. \$4.50.

A skillful piece of popularization.

*Worship and Theology in England: From Watts and Wesley to Maurice, 1690-1850.* By Horton Davies. Princeton. \$7.50.

The first of a series of volumes planned to give a full discussion of all aspects of Christianity in England since about 1500.

*The Papal Princes: A History of the Sacred College of Cardinals.* By Glenn D. Kittler. Funk & Wagnalls. \$4.95.

An anecdotal history of a great papal institution with interesting sidelights on the history of centuries of Western civilization.

*East Asia: The Great Tradition.* By E. O. Reischauer and J. K. Fairbank. Houghton Mifflin. \$12.50.

The best general introduction to the history of China and Japan, to about 1850, now in print.

*Heirs of the Roman Empire.* By Richard W. Sullivan. Cornell. \$1.75.

A new addition to a distinguished series, "The Development of Western Civilization." This volume presents a masterly picture of the Early Middle Ages in both the East and the West.

### Address Changes

Members are requested to use a KEY REPORTER stencil if possible in notifying Phi Beta Kappa of a change of residence. Otherwise, the address to which Phi Beta Kappa mail was previously sent, as well as chapter and year of initiation, should be included in the notice. This information should be directed to Phi Beta Kappa, 1811 Q Street, N.W., Washington 9, D. C. Please allow at least four weeks' advance notice.

*The South Sea Bubble.* By John Carswell. Stanford. \$5.50.

A fabulous story, stranger than fiction, very well told.

*The Rise and Fall of the Third Reich.* By William L. Shirer. Simon and Schuster. \$10. As near a definitive account as can now be written, and presented in an absorbingly interesting manner.

*The Invention of America.* By Edmundo O'Gorman. Indiana. \$5.

An interesting account of how it was realized that America was a separate continent.

#### Kirtley F. Mather

*Man and Space: The Next Decade.* By Ralph E. Lapp. Harper. \$4.95.

*Man and the Moon.* Edited by Robert S. Richardson and Chesley Bonestell. World Publishing. \$6.50.

Two of the better space-age books, one dealing restrainedly with the many problems and opportunities for activities in space in general, the other dealing similarly with explorations to and on the moon. In the latter are several sections contributed by members of the British Interplanetary Society and other experts in rocketry.

*Biography of Physics.* By George Gamow. Harper. \$5.95.

A vivacious account of what physics is and what kind of people physicists are by the well-known master of expository writing.

*Science and Government.* By C. P. Snow. Harvard. \$2.50.

In these Godkin Lectures delivered at Harvard in the fall of 1960, Sir Charles Snow

considers incisively the critical problem of making use of scientists in government with the most beneficial effects and the least risk.

*The Magic of Rays.* By Johannes Dogli. Translated from the German and edited by Charles Fullman. Knopf. \$5.75.

An intensely interesting and thoroughly informative account of the long series of brilliant investigations concerning the nature of radiant energy that have made possible many of the most significant achievements of modern science.

*Open Vistas: Philosophical Perspectives of Modern Science.* By Henry Margenau. Yale. \$5.

A stimulating survey of the philosophical perspectives of modern science, leading to a brief but pregnant consideration of the common denominator of science, ethics and religion.

*The Structure of Science.* By Ernest Nagel. Harcourt, Brace & World. \$10.

An erudite analysis of the logic of explanation in which cogent reasons are presented for confidence in the methods of objective inquiry that have brought progressive liberation from illusion.

*Assault on the Unknown.* By Walter Sullivan. McGraw-Hill. \$7.95.

The most nearly "definitive" account of the International Geophysical Year yet available; covers both the scientific and political aspects of "the single most significant peaceful activity of mankind since the Renaissance."

*The Balance of Nature.* By Lorus J. and Margery Milne. Knopf. \$5.

Dramatic accounts of the consequences of disturbing the dynamic equilibrium between different kinds of animals and their environment, something of which man has frequently been guilty in recent years.

#### Also Recommended:

*The Nature of Violent Storms,* by Louis J. Battan; *Water, the Mirror of Science,* by Kenneth S. Davis and John A. Day. Doubleday Science Study Series, 95¢ each.

*What is Relativity?* By L. D. Landau and J. B. Rumer. Basic Books. \$1.95.

*The Heroic Age of American Invention.* By L. Sprague de Camp. Doubleday. \$3.95.

*Darwin's Place in History.* By C. D. Darlington. Macmillan. \$2.

*Galileo and the Scientific Revolution.* By Laura Fermi and Gilberto Bernardini. Basic Books. \$3.50.

#### Earl W. Count

*Digging For History.* By Edward Bacon. Day. \$10.

This book presents a "spread" of the archaeological finds made between 1945 and 1959, from Britain eastward to the Americas and southward into Africa. The author tends to feature *objets d'art* and written documents, which seem to be, on first thought, at variance with the aim of modern archaeology—to recover in some meaningful measure a total view of ancient ways of life. But this would take a library, not one volume, years of the future, and an overwhelming inventory of the most mundane relics. At all events, the amateur has here a treasure trove.

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*Myths, Dreams, and Mysteries.* By Mircea Eliade. Translated by Philip Mairet. Harper. \$5.

For some time mythology has been under chastening from an enriched ethnology and insights of Jungian and Freudian psychologies. It is man's profoundest wilderness, and the author is a leading frontiersman where "contemporary faiths encounter archaic realities."

*The Lapps.* By Roberto Bosi. Praeger. \$6.50.  
*Kalahari.* By Jens Bjerre. Translated by Estrid Bannister. Hill and Wang. \$4.50.

The twentieth century will be the last in which sensitive, schooled and lone writers will speak for man—in which man is the small, self-contained society that has made its hand-hewn pact with the land that holds it. There will still be subarctic highlands and subtropical deserts—but no more such societies to write about. The dignity of man is apparent in both accounts; and the photographs are priceless.

*The Drum and the Hoe.* By Harold Courlander. California. \$10.

The folk of Haiti—vital and disease-plagued, rich in imagination and profoundly unlettered, hard-working and growing ever poorer, always and ever songsters nonetheless—are skillfully set down in terms of their beliefs, rituals, tales, dances and music. A "find" both for the professional and the serious amateur.

*Indians of North America.* By Harold E. Driver. Chicago. \$12.50.

This splendid *magnum opus* is a survey of aboriginal culture, from subsistence to language, belief and personality structure. With no unfairness to its predecessors in a dynasty, we may place it with Clark Wissler's *The American Indian* (1922) and A. L. Kroeber's *Cultural and Natural Areas of Native North America* (1939). Curiously, each of the three is enhanced by the existence of the other two. The tale of the unwarped American Indian is far from finished, but Dr. Driver carries us a long step on the way.

### Guy A. Cardwell

*A Sketch of My Life.* By Thomas Mann. Translated by H. T. Lowe-Porter. Knopf. \$3.50.

Mann's beautifully quiet, short autobiography published in German and, in a limited edition, in English twenty-five years before his death (1955) is now made generally available in English.

*Ezra Pound.* By Charles Norman. Macmillan. \$6.95.

This is not an "authorized" biography, but it is a very full, sympathetic story of a great personality and poet. The account is rich with recollections of friends and acquaintances and extracts from letters and poems.

*Poetry and Experience.* By Archibald MacLeish. Houghton Mifflin. \$4.

The first half of this volume constitutes a generous, tolerant introduction to the "means of meaning" employed by poetry; and the second half uses poems by very different poets (Emily Dickinson, Yeats, Rimbaud and Keats) to illustrate specific

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applications of meanings. Parts of the book are suffused by the author's predilection for a responsible "public" poetry, and the writing is slightly clogged by the devices and phrasings of pedagogy: Mr. MacLeish's ideas were developed during ten years of teaching.

*The Comic Sense of Henry James: A Study of the Early Novels.* By Richard Poirier. Oxford. \$6.50.

Objecting to the reduction of James's novels to such schema and polarities as one finds exposed in many studies, Mr. Poirier offers an elegant commentary on the use of comedy and arrives through a study of the language at some of James's most personal meanings.

*Language and Poetry: Some Poets of Spain.* By Jorge Guillén. Harvard. \$5.50.

In an expansion of his Charles Eliot Norton lectures, delivered at Harvard in 1957-58, Jorge Guillén, himself a distinguished poet, contributes to the theory of poetry by examining the language of six great Spaniards: Berceo, Góngora, San Juan de la Cruz, Bécquer and Gabriel Miró. He discusses the poetry of his own generation in a final chapter. His essays are, among other things, a brilliant introduction to the poetry of Spain.

### Also Recommended:

*Resistance, Rebellion, and Death.* By Albert Camus. Translated by Justin O'Brien. Knopf. \$4.

*William Faulkner: Three Decades of Criticism.* Edited by Frederick J. Hoffman and Olga W. Vickery. Michigan. \$5.95.

*Hemingway and His Critics: An International Anthology.* Edited by Carlos Baker. Hill and Wang. \$4.95.

*Melville's Reviewers: British and American, 1846-1891.* By Hugh W. Hetherington. North Carolina. \$7.50.

*The Modern Poets: A Critical Introduction.* By M. L. Rosenthal. Oxford. \$6.50.

## The Book Committee Also Writes . . .

In the past year, the following books have been published by members of the Book Committee:

• *NOTES ON THE SLAVIC RELIGIO-ETHICAL LEGENDS.* Translated from the Bulgarian of M. Dragomanov by Earl W. Count. *Indiana University Press.*

• "Myth as World-View," by Earl W. Count, in *CULTURE IN HISTORY.* Edited by Stanley Diamond. *Columbia University Press.*

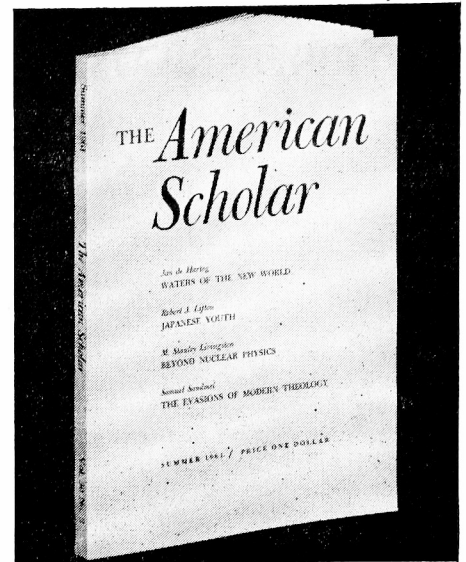
• *THE TRANSFORMATION OF THE SCHOOL: Progressivism in American Education, 1876-1957.* By Lawrence A. Cremin. *Knopf.*

• *THE WORLD IN WHICH WE LIVE.* By Kirtley F. Mather. *Pilgrim Press.*

• *THE STAKES OF POWER, 1845-1877.* By Roy F. Nichols. *Hill and Wang.*

• *EDUCATION AND MORAL WISDOM.* By George N. Shuster. *Harper.*

• *A TREASURY OF RUSSIAN LIFE AND HUMOR.* Edited by John Cournois. *Capricorn Books.* (To be published this fall.)



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# AID PROGRAMS FOR THE GIFTED

(Continued from front cover)

The United States Office of Education has reported that from February, 1959, when the program first went into effect, to July, 1960, approximately \$63 million in Federal funds have helped 115,000 talented students to continue their education. Institutions participating in the loan program have contributed \$7 million in matching funds—each institution in the program must put up \$1 for every \$9 of Federal funds it receives.

Studies conducted by the Office of Education, which acts as co-ordinator for the project, indicate that loans to high school seniors far outnumber those to other classes—at the end of the first full year of the program in June, 1960, about 20,000 entering freshmen had received help.

The growth of the program has been remarkable, and it has received widespread acceptance. In the February, 1960, issue of *School Life*, C. H. Moore, former Assistant to the Commissioner of Education for NDEA, said:

Daily the mail brings assurance that many people, formerly fearful of Federal aid, are beginning to realize that the Federal Government does have an urgent interest in strengthening education and that

through its investment in NDEA and other Federal aid programs it is discharging its role properly and efficiently without disturbing the vitally important pattern of State and local control.

President Kennedy, in recognizing the need to encourage gifted students, has recommended the renewal and expansion of the NDEA, which expires next June. If his proposal is approved, the loan program will be made permanent. Even if the program is extended, the President has acknowledged that the needs of many capable students will not be met.

To overcome this deficiency, he has also recommended the establishment of a five-year program of state-administered scholarships for "talented and needy young people which will supplement but not supplant those programs of financial assistance to students which are now in operation."

The House Education and Labor Committee has approved a revised version of the Administration bill which authorizes \$295 million in Federal grants for scholarships. They will be awarded on the basis of a student's ability and financial need. This omits an Administration pro-

posal for \$350 million in additional grants to participating colleges.

The bill contemplates 200,000 two-year scholarships averaging about \$700 a year but ranging to \$1,000. Approximately 40,000 scholarships would be awarded annually over the five-year period. The original Administration bill called for 212,500 four-year scholarships at approximately the same annual rate.

After much controversy in Congress and from outside sources about the administration of the grants, the committee agreed to allow the participating institutions, rather than state commissions, to administer the program. A limit on the number of scholarships available to each college was set at about 5 per cent of its freshman class.

Although the bill is still in committee, a vote in both houses of Congress is imminent.

It has been estimated that despite the substantial contributions to the financial needs of many college students from both public and private sources, nearly one-third of the nation's brightest high school graduates are unable to go on to college mainly because of monetary reasons. The spectacular rise in college enrollments and the ever-increasing costs of academic training indicate the need for expanding and developing new national programs for scholarships and loans in the future.

Aid Programs for the Gifted  
By Polykarp Kusch  
Scientists and Laymen

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