

Now for a final word concerning *Copyright and Related Topics* as a whole: The enactment of a new copyright statute, though it would effect many important changes in the present law, would do little to detract from the value of the articles in this collection; they will continue to serve as instructive and provocative guides on some of the most fundamental principles underlying the copyright system. The new law will be best understood, of course, by those who can see its roots and the forces of reason and experience that made it grow as it did. As for the articles on "related topics"—the development of rights and remedies respecting privacy and the use of titles, names, symbols, personalities, spectacles, and ideas having promotional or trade value—they also have much of lasting interest in tracing the theories on which the law in these adjacent fields is evolving.

In sum, this volume of selected articles will provide, for those who are not specialists in the copyright field, an informative and stimulating tour of the country. And the specialist, who may have read most of the articles individually in the past, is likely to find that two or three of them escaped him before and that others are well worth re-reading; for him too this volume offers the convenience of placing within ready reach some of the choicest material on the subject.

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THE SCIENTIFIC ESTATE. By *Don K. Price*.† Cambridge: The Belknap Press of Harvard University Press, 1965. Pp. xi, 323. \$5.95.

The Dean of the Harvard University Graduate School of Public Administration has written a long essay considering the impact of the scientific-technological revolution on the American politico-economic structure. In *The Scientific Estate* Dean Price asks "the fundamental question: how is science, with all its new power, to be related to our political purposes and values, and to our economic and constitutional system?"¹ The problems posed and the answers suggested form a provocative and important book deserving wide readership—not only by scientists; but also by lawyers, political scientists and economists. Commenting on the book, scientist Dael

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¹ PRICE, *THE SCIENTIFIC ESTATE* 3 (1965).

Wolfe has said, "The political theorists who wrote the U.S. Constitution sought to protect a democratic government and society against the then major sources of power: property, the military, and the church. Since that time, science and technology have become important sources of power. How would the Founding Fathers have handled this problem? It is at this general and fundamental level that Price considers the relations between scientists and government and the problem of keeping the growing influence of science compatible with representative government."² I hasten to add that in my judgment Dr. Wolfe's history is at least questionable and probably erroneous. The founding fathers did not protect a "democratic" society against "property" and the "church." Quite the contrary. But the question he asks, nevertheless, is pertinent.

About the turn of the century Holmes presciently observed that the lawyer of the future was not to be the man versed in the black-letter law but rather he was to be the expert in economics and statistics. Such is the case, now that the Holmesian future has arrived. Increasingly the important work that lawyers do is concerned not only with norms imbedded in code, case and compilation of doctrine but also with the economics and politics of societal decisions. This, put another way, is merely to note that *public law* has become the dominant segment of law; it is all-pervasive, working immense changes in the nature of private law while impinging more and more directly upon individuals and collectivities.³ It has now become evident that the further dimension of science and technology is being added to the corpus of knowledge of which the lawyer must be cognizant if he is to function in the present-day and emergent society. In many respects this book poses significant challenges for legal educators which in themselves suggest a need for curricular change. However, the response to date of the law schools has been just as disappointing as it has been in reacting to the analogous need for insight into the political economy of human affairs of which Holmes spoke.⁴ It is clear enough—at least, it *should* be clear enough,

² Wolfe, *Editorial: A New Level of Understanding*, 150 *SCIENCE* 693 (1965).

³ On the importance of public law, see Linde, *Justice Douglas on Liberty in the Welfare State: Constitutional Rights in the Public Sector*, 40 *WASH. L. REV.* 10 (1965); Miller, *The Impact of Public Law on Legal Education*, 12 *J. LEGAL ED.* 483 (1960); Reich, *The New Property*, 73 *YALE L.J.* 733 (1964).

⁴ Compare Estep, *International Lawmakers in a Technological World: Space Communications and Nuclear Energy*, 33 *GEO. WASH. L. REV.* 162 (1964), with Beresford, *Lawyers, Science, and the Government*, 33 *GEO. WASH. L. REV.* 181 (1964).

although one should not be sanguine on the matter—that science and technology pose new and critical problems for legal education.⁵ Legal education exists for a purpose larger than annually turning out a few thousand technicians in legal “doctrine,” however defined. I suggest that this “doctrine” must include reference to both social and natural science.⁶ Lawyers and law professors must also be concerned with a condition described by Dr. Eugene Rabinowitch, editor of the *Bulletin of the Atomic Scientists*: “The capacity of the democratic, representative systems of government to cope with the problems raised by the scientific revolution is in question.”⁷

When President Eisenhower, in his farewell address, warned the country that public policy might “become the captive of a scientific-technological elite,” he was not speaking lightly. He was particularly disturbed with the prospect of alliances between the scientists and a “military-industrial elite” to control public policy.⁸ It was a shock for scientists, as it was for business leaders and some military personnel, to be linked by a conservative President in a new “estate” of the realm. Indeed, it should have been not only a shock but a challenge to all who are concerned with the political process in this nation—and what lawyer is not? It is the great merit of *The Scientific Estate* that in it Dean Price elevates and illuminates our understanding of the relation of science to democratic government. “The scientific revolution,” Price asserts, “seems certain to have a more radical effect on our political institutions than did the industrial revolution, for a good many reasons.”⁹ These include: (a) the fusion of political and economic power; that is, the public

⁵ See Estep, *supra* note 4, at 162: “[C]onsidering the rapid technological development and the wholly new sciences and technologies which have arisen just since World War II, present law school curricula constitute an amazing indictment of legal education, or at least a dramatic demonstration of the fact that, in bringing the law ‘up to date’ in areas such as administrative law and judicial administration, the very institutions which are supposed to be preparing the leaders of tomorrow’s bar are failing to take account of these new developments [in science and technology] which inevitably have an impact upon the law and demand some kind of legal control.”

At the risk of excessive loyalty to my own institution, I should like to call attention to a Program in Law, Science, and Technology recently established at The George Washington University under the direction of Professor Harold P. Green. Other law schools which have dealt to a limited extent with law and science include Yale, Illinois, U.C.L.A., Michigan and Western Reserve.

⁶ See Miller, *On the Interdependence of Law and the Behavioral Sciences*, 43 TEXAS L. REV. 1094 (1965).

⁷ RABINOWITCH, *THE SCIENTIFIC REVOLUTION* (1963), quoted in PRICE, *op. cit. supra* note 1, at 10.

⁸ N.Y. Times, Jan. 18, 1961, p. 22, cols. 4-5.

⁹ PRICE, *op. cit. supra* note 1, at 15.

and private sectors of American society are growing closer together; (b) a new order of complexity in the administration of public affairs; and (c) the fundamental system of checks and balances is being upset. The significance of this for the public-law specialist is obvious, and is summed up by Price's statement: "*the main lines of our [public] policy, over the long run, are likely to be determined by scientific developments that we cannot foresee, rather than by political doctrines that we can now state.*"¹⁰ The translation of these scientific developments into official decisions—legislative, administrative, judicial—is now and will in the future be the work of lawyers. As Price says, "science alone cannot solve political problems"¹¹—although at times some appear to disagree.

In matters of public policy the problem is one of "managing" change, for change is built into the social system by science and technology. We shall be in trouble if reliance for this task of managing change is placed upon the scientist and technologist, for neither has much appreciation for or even knowledge of the values subsumed under the concept of human dignity. An exception might be made, of course, for those scientists who publish in the *Bulletin of the Atomic Scientists*. Unhappily, however, they are balanced by many non-scientists, such as some economists, who tend to outdo the natural scientists in being non- and anti-humanistic. Exclusive reliance on science is dangerous because it does not provide a body of set truths that can serve as a basis for political, *i.e.*, legal action. "The main philosophical threat to our freedom is not that science will tempt us to invent a new materialist dialectic, or establish a '1984' style dictatorship. It is rather that if we rely on science alone we will be left with no sense of the purpose of existence, and thus no basis for determining our political goals to guide the blind forces of applied technology."¹² Dean Price wants the scientist to play an active role in government and the politician to take a sympathetic interest in science and scientific institutions. We have yet to learn to control in a responsible manner the technological forces released into society and have no new system of values by which to judge these forces.

In some respects, the challenges Price poses for the scientist and politician—of control over technology and of attaining a sense of

¹⁰ *Id.* at 186. (Emphasis added.)

¹¹ *Id.* at 162.

¹² *Id.* at 107.

purpose—seem to raise questions similar to those which lawyers have traditionally been called upon by the American people to resolve. The central position of the lawyer in this country has long been noted, particularly in the governmental processes. In recent years, though, a tendency to call upon others like the economist or scientist has become evident.¹³ Lawyers have been our generalists in policy-making positions both in and out of government. Whether or not they can continue in such a position is one challenge Price impliedly presents to the legal profession. Whether it will be met or not is unanswered; the legal profession and legal education seems to be curiously moribund. In a world characterized by rapid change, “lawyerdom” is not moving with the alacrity of celerity necessary to keep up. Lawyers still fly backwards and seek to answer today’s problems with the solutions of yesteryear. But in fact the very existence of a problem means that the answers of yesteryear are suspect or in need of reexamination. The legal profession has no institutionalized method of self-analysis, which would enable it to determine whether it is adequately meeting the tasks presented by society. Chaos lies all about us: delay in the courts, politicization of the administrative process, breakdown of respect for law, rise in crime, to name but a few examples. The old order is changing and lawyers seem fated to be spectators rather than participants.

If lawyers were to become participants—as they should, particularly those connected with public law and with the law schools—attention must be accorded to such matters as the assimilation of scientific and technological knowledge into the legal processes. We persistently try to solve the problems of today with the tools of yesterday, despite the fact that they are not working. This is true both in the detailed routine of the law, particularly in courts, and in the larger questions of public-policy making. In addition, lawyers must face the question of “purposiveness,” that is, the ends and goals of society must be considered and the conclusions and policies resulting must be those which are most likely to fulfill those ends and goals. This calls for a new “breed of man,” a new type of thinking.¹⁴

¹³ Price indicates the extent to which scientists occupy positions of power. See also LAPP, *THE NEW PRIESTHOOD: THE SCIENTIFIC ELITE AND THE USE OF POWER* (1965). On economists, a lawyer interested in the governmental process might well ponder NOVICK, *PROGRAM BUDGETING* (1965), and *PLANNING-PROGRAMMING-BUDGETING* (Bureau of the Budget Bulletin No. 66-3, 1965).

¹⁴ See Mayo & Jones, *Legal-Policy Decision Process: Alternative Thinking and the Predictive Function*, 33 *GEO. WASH. L. REV.* 318 (1964).

However, one looks in vain to the legal profession for more than sporadic, occasional attention to such matters. Certainly the practicing bar is doing little or nothing. Try to learn, for example, how that pillar of baroque orthodoxy, the American Bar Association, meets the burgeoning problems of the day. If one has the viscera to withstand reading the *American Bar Association Journal*, particularly the statements of the presidents of the ABA, one would wonder whether the leaders of the bar are living on the same planet where science and technology are transforming the face and nature of the earth, posing crucial problems to man, and disrupting time-honored political and economic institutions. With some exceptions, the same may be said for the academic branch of the profession, as witness any annual meeting of the Association of American Law Schools, or much of what is published in the *Journal of Legal Education*.

The American people are not receiving what they should from the legal profession. Study any one of the great, pressing problems of the day and one soon concludes that the lawyer's contribution is minimal at best. Population control, environmental pollution, violence in the international community, all of which have scientific roots, find lawyers silent or at least speaking with muted tones. Yet the question of population growth is as explosive as any in the world, atmospheric and other pollution can blight the landscape, and war can obliterate man.

Other problems obtrude. The position of the Negro in our society, surely the most polycentric of all social questions, is far from settled.¹⁵ Still lawyers have little to say. A proliferating government characterized at times by unrestrained discretion intrudes more and more into the interstices of society and everyday affairs of Americans. But lawyers have little to say.¹⁶ There is no established means by which many major public-policy issues can be debated *prior* to promulgation.¹⁷ Lawyers could and should do this—but, they have not responded.

¹⁵ See BENNETT, CONFRONTATION: BLACK AND WHITE (1966); Miller, *Book Review*, 18 J. LEGAL ED. 363 (1966).

¹⁶ Attempts by the academicians to grapple with the complexities of the control of discretion in the bureaucracy may be found in DAVIS, ADMINISTRATIVE LAW TEXT § 4 (2d ed. 1959), DAVIS, ADMINISTRATIVE LAW TREATISE §§ 4.13-14 (1958, Supp. 1965), and DAVISON & GRUNDSTEIN, ADMINISTRATIVE LAW 601 (1952). Cf. Miller, *The Public Interest Undefined*, 10 J. PUB. L. 184 (1961).

¹⁷ This means that in many portentous areas we now have government by *fait*

Lawyers, in short, are losing caste in this country. Dean Price documents some of what has taken place. His book should be required reading in all law schools and should be the subject of faculty seminars and discussions. This, one may be sure, will not be done. There is little evidence of any real awareness within the legal profession of the truly revolutionary society in which we live. Lawyers are not dinosaurs; they will not disappear. But they will continue to become mere legal mechanics as the bar becomes more and more deprofessionalized—unless and until a breakthrough is made to a new order of viewing the human condition. It must be remembered that when President Eisenhower warned against a “scientific-technological elite” he made no mention of lawyers. I do not suggest that lawyers should strive to be a part of this elite as an end in itself; but I do suggest that lawyers had better begin to learn what the scientists, technologists and economists are doing. If the study of law were to encompass more than the traditional abstract legal lore so long the fancy of hornbook writers and others,¹⁸ then it could become the technique through which humanistic values will be preserved in a society dominated by the non- and anti-humanists. The end and purpose of law, in addition, of course, to its normative, ordering function, is that of infusing humanism into cold rationalism. We have lost, or are losing, that ability. It is being replaced by a naïve faith in science which has become the new estate of the realm, equipped with a priesthood¹⁹ and a corpus of esotery known only to that priesthood. Just as lawyers replaced the clergy,

accompli. Compare, in this regard, the decision by President Kennedy to put an American on the moon by 1970 with that by President Johnson to escalate the “war” in Vietnam.

¹⁸ In 1886 Holmes said: “If your subject is law, the roads are plain to anthropology, the sciences of man, to political economy, the theory of legislation, ethics, and thus by several paths to your final view of life. . . . To be master of any branch of knowledge, you must master those which lie next to it; and thus to know anything you must know all.” Speech by Oliver Wendell Holmes, Jr., entitled *The Profession of the Law*, Feb. 17, 1886, to Harvard University, in SPEECHES 22 (1913). See Reich, *Toward the Humanistic Study of Law*, 74 YALE L.J. 1402 (1965).

¹⁹ See LAPP, *op. cit. supra* note 13, at 29: “No one—not even the most brilliant scientist alive today—really knows where science is taking us. We are aboard a train which is gathering speed, racing down a track on which there are an unknown number of switches leading to unknown destinations. No single scientist is in the engine cab and there may be demons at the switch. Most of society is in the caboose looking backward.”

See Born, *Reflections*, Bulletin of the Atomic Scientists, Nov. 1965, p. 3, at 5: “My thesis [is] that science and technology have destroyed the ethical basis of civilization, perhaps irreparably”

so now the scientists, natural and behavioral, are replacing the lawyer. The technocrats have arrived and are taking over.²⁰

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²⁰ An example of how science and technology are making obsolescent, even obsolete, many of the skills and techniques of yesteryear is a finding of the *Wall Street Journal* that many business executives cannot adjust to business permutations because they have not kept up with a changing world. See *Wall Street Journal*, Jan. 24, 1966, p. 1, col. 6.

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