

THE INSTITUTE
FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

Report of the Director

1966-1976

To The Board of Trustees:

IN this final report, I review briefly the state of the Institute when I became its fourth Director in 1966, and describe its present condition. What follows will, then, be a capsule history of the decade 1966-76, a decade of growth and change.

I am as confident at the end of the 10 years as I was at its outset, of the excellence of the Institute and its importance in the academic world. If Abraham Flexner had not had the vision to create it in 1930, it would have been necessary to invent in the years since then. We have, of course, been paid the tribute of imitation many times. We make a contribution to basic science and learning that is many times greater than would be expected from our size. I believe this is true because of the combination of essential features that distinguish ours from other excellent centers on similar models, here and abroad.

The unique combination at the Institute is a group of annual members from all over the world, in several disciplines, with a small stable faculty. The visitors return to their own institutions with new perspectives, spreading the orientation toward fundamental questions in their fields which they find here. The Faculty serves several vital functions. First, it is the symbol, pervading and uniting the whole, of the institution's unsurpassed quality. This symbol, and the reality of excellence underlying it, are indis-

pensable to our purpose. The Faculty both selects the members, and provides the intellectual orientation for their work, especially the younger ones. Finally, it offers them a rare chance for close informal interaction with masters in their fields during a year free of teaching and the other pressures of daily university life. It is well to remember that the development and welfare of the younger post-doctoral members was Flexner's central purpose, as well as the Founders', in establishing the Institute.

Flexner's experiment was an instant success due to the tragic turn of history that enabled him to recruit such giants as Einstein, John von Neumann, Erwin Panofsky and Hermann Weyl. Their presence won immediate acceptance in the academic world for the new Institute, and the clamor for a place as a visiting member among mathematicians, physicists and historians of the first rank, of all ages and nations that was heard, continues to this day.

If the competition for place at the Institute is keen, once arrived, the visitor finds peace and total freedom from all demands not self-imposed, along with the intellectual stimulation gained from daily contact with peers, or masters, in a small community of considerable beauty. The special atmosphere of the Institute combines repose and hard work. The chance to work without distraction, in the elite company provided here, makes a critical difference in the intellectual development of many of our post-doctoral members, and it is a boon of great importance to the work of the established, senior visitors. Contributions to

science and learning by both our faculty and members are steady, striking, and important. All of this is as Flexner had envisioned. Throughout these ten years, I have been ever conscious of the need to preserve these best features of our outstanding center, while trying to fulfill the Board's charge to me in 1966.

State of the Institute Ten Years Ago

After 35 years, the Board decided the time had come to re-examine the role of the Institute and its effectiveness, to look at its activities and functioning in light of its purposes. Therefore, in 1965, when Robert Oppenheimer announced his intention of retiring from the directorship the following year, the Board combined a search for his successor with a careful evaluation. To this end, it created from its own ranks a Committee on the Future of the Institute, which worked for more than six months with the help of a full time assistant. Recognizing the strengths described above, the Committee recommended some change and revitalization.

For various reasons, the fields of intellectual endeavor in which the Institute was active had been much narrowed from those originally mapped out by Flexner. The Committee recommended that the Institute broaden its range by including more activity that reflected scholarly concern with the problems of contemporary society. The Board accepted this recommendation, and invited me as Director to effect it.

In making this decision, the Board did not fail to appreciate the value of the continued cultivation of pure mathematics and theoretical physics, nor the relative emphasis on classical and medieval studies in the School of Historical Studies. In recommending an expanded Institute, the Board recognized that this would require additional capital funds, if support of the established fields was to continue. For the first time since its endowment by the Bambergers, the Institute would have to appeal to the outside world for funds, a responsibility I undertook.

There was serious overcrowding in both offices and housing; yet in each of the three Schools, which then constituted the Institute, the Faculty wished to be able to invite more members. Also, sustained conversations were no longer possible in the cafeteria, because of the need to turn over seats. This point was not trivial: brash new ideas can be exposed in leisurely luncheon encounters that are too ill-formed to be offered in the seminar room, much less on paper. For all these reasons, the Board recognized the urgent need for expansion of the physical facilities that I recommended in my first year.

The Committee on the Future had learned that some visiting members felt isolated for various reasons—youth, shyness, language difficulties, etc.—and that this was sufficiently severe in some cases to diminish their full profit from the year at the Institute. In the zeal to guard members' freedom to work independently and with no con-

straints, other needs had come to be somewhat neglected. Some expansion of the non-academic program offered visitors was recommended.

The School of Natural Sciences—separated formally from Mathematics only in 1965—was suffering a sharp reduction in the size of its faculty. This was not a stable situation, and, accordingly, it needed special attention if the Institute were to maintain its historic importance in theoretical physics.

The great majority of people at the Institute at any particular time—namely, the visiting members—were almost unanimous in finding their stay important to them, productive and pleasurable. On the other hand, there had been tensions from the first within the small permanent community—the Faculty, Director and Board. The Board called this problem to my early attention.

Finally, the Board recognized that it, itself, was in need of revitalization, in the absence of any retirement age. The possibility of instituting one was now raised, and it was decided to fill vacancies with younger members having the requisite background and experience for service to our Institute.

The definition of my goals as Director was largely shaped from this careful report, and from discussions with the concerned members of the Board who submitted it. I believe now that most of these goals were achieved in

the last 10 years. As the parable of the talents teaches us, it is the duty of the faithful servant not merely to conserve what has been entrusted to him, but to improve it.

The School of Social Science

The opportunity to develop a new field of activity at the Institute was the challenge that meant most to me. That the School of Social Science now exists on a firm intellectual and financial base is an accomplishment I consider to be one of my chief contributions to the institution. My decisions as Director were made in the context of this purpose, a more difficult one to realize than the Board and I had anticipated.

It was my view that a quest for a deeper understanding of the nature of contemporary societies, and of the men and women who inhabit them, could be sought at the same high level of scholarship that has been the emblem of the Institute, and that this could best be done in a new School. It seemed to me, as it still does, that the social sciences, particularly in the generation since the second World War, have attracted increasing numbers of scholars with outstanding natural endowments, who use their talents in this field of great difficulty, precisely because it is so difficult.

The conventional demarcations among the fields of social science exhibited in the departments of the usual uni-

versity faculty correspond poorly to real differences in materials and methods of study, and, more than in most disciplines, reflect the intellectual history of the field rather than its current state. The rapidity with which both the techniques of investigation and materials studied are still changing further underlies the artificiality of these departmental boundaries.

The unique character of the Institute, with its freedom to choose faculty and invite members unconstrained by the boundaries of traditional departments, and the absence of structures channeling the nature and style of their work, makes it an especially suitable place in which to advance basic thought in these still young fields. Further, I believed that the addition of the new School would enrich the intellectual life of the Institute.

My original conception of the academic scope of the program was faithful to Flexner's intentions in that it addressed fundamental questions, of great intellectual appeal and difficulty, without reference to their immediate application to society's present needs. There were two distinct themes in my formulation—the first was the study of the processes of social change. It aimed to combine the intellectual resources of the social sciences and history in an examination of the determinants of the direction and pace of historical change. Why some changes are slow and evolutionary, some rapid, revolutionary and violent; why some new cultures and new religions remain the posses-

sion of a few, and others spread across large parts of the world are puzzles that have always excited the curiosity and speculation of historians and philosophers of history. Only in the last generation has the application of the concepts of the social sciences begun to provide the analytical tools for a systematic attack on these problems. At the same time, many historians are less ready to define their task as simply to reconstruct the past "as it really was," and are using the methods and categories of the analytic social sciences in addressing historical materials.

Further, the new relation between the European and the non-European world has provided both new materials for the study of social change, and a renewed incentive for its intensive examination. The disintegration of the colonial system, and the rapid emergence on the world stage of nearly 100 new nations since the end of the Second World War, has stimulated the study of non-Western societies. The interest of the industrialized countries in the economic development of formerly colonial areas has affected all the social sciences, and led them to new topics. In turn, the familiar materials of Western societies are now viewed in new perspectives, and used for new purposes.

A variety of methods is applicable to examining this range of problems. The institutional approach which examines changing structures and functions—overt and latent—of major social institutions, is the traditional mode

of sociologists and historians, and remains important. In recent years, there has been increasing use of quantitative methods, in which economic history and sociology have led the way. Quantification is significant for the systematic analysis of large bodies of materials, and for more precise specification of explanatory hypotheses. But there remain problems to which quantitative methods do not now seem applicable, especially in the realm of the history of belief systems and attitudes, where qualitative modes of analysis are necessary. The crux of the whole process of social change appears to lie in the nature of the interaction of changes in social beliefs, attitudes and ideas with those of changes in institutions.

The program began in 1968-69 on a modest scale with four visiting members. Since then, we have had almost 100 members, an excellent and diverse group including anthropologists, demographers, economists, economic historians, historians, political scientists, sociologists and social psychologists. They have included established leaders and promising young scholars from universities in this country, Latin America, England, Europe, the Middle East and Asia.

Clifford Geertz was my first choice to help give weight to this enterprise, and I was able to persuade him to leave the University of Chicago, where he was Professor of Anthropology, to become the first Professor in the Program in 1970. Geertz studies Islamic culture and society, rang-

ing from Bali to Morocco, and from the interrelations between demography and agriculture in Java, to the political significance of sainthood in the Maghreb.

The new program was formally given the status of a School by Board action in 1973. At that time, I joined its faculty, having sat until then as a professor in the School of Historical Studies. My own work, done mostly at Harvard where I was Professor of Political Economy, concerns contemporary U.S. institutions, and includes contributions to the analysis of market behavior, law, public policy and economic sociology.

In 1974, Albert Hirschman, then Professor of Political Economy at Harvard, became the third Professor in the new School. Hirschman is a leading student of the interaction of economic development and political change. Much of his work has concerned Latin America, but his interests range widely over the world, and reach back from the contemporary scene into the period of the growth of the modern market economy in Europe.

William Sewell, Jr., social historian of modern France on leave from Chicago, and Quentin Skinner, on leave from Christ's College, Cambridge, student of the interaction of political thought and politics, have recently joined the School as long-term members. They join in the selection of visiting members, and by their presence, extend the School's perspectives.

In 1973, Robert Bellah, Professor of Sociology at Berkeley, and a leading scholar of Japanese culture and of the sociology of religion, was appointed Professor in the School by Board action, but declined for personal reasons.

The second area in which I believed the School could work in a new and useful way was explored on a term basis, and is now discontinued. This program was addressed to how the small social unit and the individual absorb, process, and use information. Economists studying the theory of choice under uncertainty, whether for the firm or the household; sociologists examining the process of decision-making in organizations in general; political scientists concerned with these processes in political organizations—all find themselves dealing with a similar set of problems which appear to share closely related logical structures. These same ideas appear in the psychological and linguistic analysis of the problems of language learning and structure. Similar problems turn up in the study of artificial intelligence.

Work in this area was initiated in 1969, and continued until 1976. There were 20 members over this period. Intellectual leadership was provided by two long-term members: Duncan Luce, now Professor of Psychology at Harvard, who worked here 1969-72; and George Miller, Professor of Psychology at Rockefeller University, who had a close association with us between 1970 and 1976. Although short-lived, the program was fruitful, both for

the work of the participating members and for further researches by others into the difficult questions it addressed. If financial support can be found, the program merits resumption.

There were two special years in which the demonstrated ability to explore a particular topic in depth guided the selection of about half the members: Economic Development and Political Change in Latin America (1974-75), organized by Professor Hirschman; and Symbolic Anthropology (1975-76), organized by Professor Geertz.

The new School takes its place at the Institute altogether worthy of the very high prevailing standards, attracting lively and able members, and advancing basic research in the social sciences.

Development of the School of Natural Sciences

The task of building up this School was an immediate one. Robert Oppenheimer died early in 1967, and Bengt Strömberg resigned to assume a distinguished post in Denmark at the same time; thus only two of its four eminent physicists remained—Freeman Dyson and Tullio Regge.

Working closely together and drawing on the counsel of other leaders in the profession, we decided that at least three or four additional Professors were needed in order to give stability to the School and leadership to able post-

doctoral members working in theoretical physics. It seemed important to continue work in astrophysics, to add the new field (for the Institute) of plasma physics, and to find leadership for the work in the central field of particle physics. In 1967, Marshall Rosenbluth, a leading theorist in plasma physics was appointed. Stephen Adler and Roger Dashen, two young high-energy physicists of unusual promise, who had joined the Institute as long-term members in 1966, became Professors in the School in 1969. John Bahcall, an outstanding astrophysicist, joined the group in 1971. The present faculty gives the School both a wider range, and a more intimate engagement with experimental work than it had earlier. The work of the faculty and members, however, remains theoretical.

Along with the dramatic change in the composition of its faculty, the number of members and assistants in the School increased by nearly one-half, and their characteristics changed. By the end of the decade, a larger proportion were in the post-doctoral group under 30, the representation from the U.S. and Canada rose from 1/2 to 4/5, and the spread of interests broadened in correspondence with the wider reach of those of the faculty. There was a special year—1970-71—during which a group of members were invited by Professor Dyson to explore Axiomatic Physics in depth.

The School of Natural Sciences is presently healthy and secure. The members are of very high calibre. There are

lively seminars, and close interaction among the members, and with the faculty. It embodies Flexner's vision in every way.

The School of Mathematics

The School of Mathematics has changed less over the last decade than any other part of the Institute. It is the oldest and largest of the Institute's divisions, and has maintained a world-wide reputation as a center of research and post-doctoral training in pure mathematics over its whole existence. It has often been said, and truly, that since the 1930's every one of the world's leading mathematicians in a position to spend time at the Institute, has done so. In a fundamental way, the recent history of pure mathematics and the history of the School of Mathematics at the Institute largely overlap. At present, there are 5 professors who were in the School in 1966 and who are continuing their distinguished work here: Armand Borel, Harish-Chandra, Deane Montgomery, Atle Selberg and Hassler Whitney. Two new outstanding mathematicians joined the group: John Milnor (1970) from M.I.T., and Robert Langlands (1972) from Yale. There were two resignations from the School's faculty: Lars Hörmander (1968), who returned to Sweden, and Michael Atiyah (1972), who returned to England as Royal Society Professor. There were three special years in mathematics: Analysis (1966-67), organized by Professors Beurling and Hörmander; Group Theory (1968-69), organized by Pro-

fessor Borel; and Number Theory (1970-71), organized by Professor Selberg.

The number of members and assistants increased by a fifth. They remain the youngest group at the Institute and come, literally, from all over the world, as they have from the beginning, for the extraordinary opportunity offered mathematicians by the Institute.

The School of Historical Studies

Over the decade, the School of Historical Studies changed substantially. There are now only three professors who were on its faculty in 1966: Homer Thompson, Classical Greek archaeologist, Marshall Clagett, historian of medieval science and learning, and J. F. Gilliam, Roman historian. Three of the five new appointments during the period were in established fields for the School: Kenneth Setton (1968), medievalist, from the University of Wisconsin; Christian Habicht (1973), Greek historian and epigrapher, from Heidelberg; and Irving Lavin (1973), art historian, from N.Y.U. Two new fields were added with the appointments of Morton White (1970), historian of American thought, from Harvard, and John Elliott (1973), historian of the Spanish renaissance and expansion into the new world, from London. A further enlargement of the scope of the School's work was effected by the appointment of Bernard Lewis, from London, as a permanent member in 1974. His is a joint appointment with Princeton

University, where he is Cleveland E. Dodge Professor of Near Eastern Studies. Since he is also a member of the School of Social Science, his presence helps to increase interaction between historians and social scientists at the Institute.

The number of visiting members in history increased by almost 40 percent over the decade. They are now a younger group, there are more Americans and Canadians, and the relative emphasis on classics has declined somewhat, and that on modern history increased, especially at the expense of members in a miscellany of historical subjects.

Other Changes, 1966-1976

Institute professors do not retire until age 70, and, in most cases, keep working after retirement in the same way and in the same office. Marston Morse (mathematics) and Andrew Alföldi (history), who were active emeritus professors in 1966, have been joined in this status by 3 historians—Harold Cherniss (1974), George Kennan (1974) and Felix Gilbert (1975)—and by 3 mathematicians—Arne Beurling (1973), Kurt Gödel (1976) and André Weil (1976). Benjamin Meritt, who was the Institute's first professor in history, moved to Texas on his retirement in 1969.

There were three deaths among the faculty during the period. Professor Emeritus Elias Lowe completed his mon-

umental Corpus of Latin Inscriptions shortly before his death at age 90. Two art historians of great distinction, who contributed immensely to scholarship, and to the Institute's place in the field, died: Professor Emeritus Erwin Panofsky in 1967, and Professor Millard Meiss, within a year of his retirement, in 1974.

Robert Oppenheimer died shortly after leaving the directorship. He was only 62, and had expected to resume his work in theoretical physics, which had been interrupted by his brilliant direction at Los Alamos, and his years as Director of the Institute (1947-66), during which he contributed much. His stature in the world at large enhanced the Institute's reputation. His humanism and taste, combined with his own scientific achievement, helped to maintain the Institute as a very important center for theoretical physics, art history and classics, while its preeminence in mathematics continued.

New Funds

The need to raise money presented me with the least congenial of my tasks as Director. However, it was rewarding—more than \$8 million was added to the Institute's endowment over the period. There was no public campaign; it was, rather, a continuous effort to which I addressed myself. Many of you helped, and we have reason to express thanks to several foundations, corporations and individuals who showed their confidence in the excellence

of the Institute, and in the likelihood of success of its new venture, in this very concrete way.

Creating the financial base for the new School was my major effort at raising new funds. At present, the capital available for the School is over \$6 million. The most important initial single source of support, to permit the appointment of professors and thereby put the program on a permanent basis, was the Ford Foundation. In 1968, it offered a challenge grant of \$1.5 million conditional on the Institute's raising \$2 million additional funds from non-government sources within four years. We more than met this challenge before the end of the period. Members of the Board contributed generously. The 1907 Foundation gift of \$1 million for the support of a Professorship in Social Science (held by Albert Hirschman) was the crucial gift that insured timely success. Its later gifts totalling an additional \$1.5 million dollars have provided the firm financial base for the development of the School.

I also sought new funds for the three established Schools and for the Institute as a whole. The major grants were: from the National Science Foundation, towards the construction of the new office building, nearly \$500,000; from the I.B.M. Corporation, for the permanent funding of the von Neumann Professorship in Mathematics (held by Harish-Chandra), \$1 million; and from Philip Klutznik, his family and associates, of Chicago, towards the joint

appointment with Princeton University of Professor Bernard Lewis, \$250,000.

In addition, government grants and contract funds for the support of visiting members increased, chiefly grants from the National Science Foundation. For the first time, substantial outside assistance for members' stipends in the School of Historical Studies was sought. The National Endowment for the Humanities, the Mellon Foundation, the Kress Foundation, and the Lucius N. Littauer Foundation all made important contributions for this purpose. Also, in the social science program, the Carnegie Corporation and the Russell Sage Foundation jointly supported a number of visiting members between 1968 and 1971. A grant from the Sloan Foundation supported some 20 members in the second part of the social science program between 1969 and 1976.

In the hope of achieving a significant total of annual gifts from a sufficient number of small ones, an Associates of the Institute program was begun in 1971. Appeals were made to large industrial corporations, banks, and interested individuals for regular contributions. Over the period, another \$200,000 was added to our resources, thanks to this program.

It is worth noting that our portfolio has been shrewdly and boldly managed by experts on this Board, at no cost

to the Institute. There is no need to remind this group that it was a sluggish period for the national economy, in general, and the stock market in particular.

Not unexpectedly, there was a substantial increase in our expenditures over the period. The total expense budget increased some 2 1/3 times, and expenditures from Institute funds more than doubled. On the other hand, the availability of government and foundation support nearly trebled. The growth of expenditures reflected rising unit costs as well as real growth: the index of educational costs compiled by the Department of Health, Education and Welfare increased nearly 1.8 times over this decade.

There is no doubt that further fund-raising is needed to add capital resources in support of our present operations.

New Buildings and Activities

The Institute has been called "the penthouse on the ivory tower," a phrase which denotes isolation from the marketplace, but also, and appropriately, carries the suggestion of rarity and beauty. Ultimate standards in the intellectual world are aesthetic; terms such as originality, depth and elegance are now used in an approving way to characterize intellectual work. Thus, it is appropriate to the Institute's purpose that it seek beauty as well as utility in the structures that house its activities, and embody it in visual form.

Our original buildings do not now appear to have reflected such a concern. Fuld Hall has a solid and imposing character, and the grounds in which it is set are spacious and handsome; the building itself has little distinction. Yet, as we know, age can sanctify indifferent architecture, and over more than 35 years Fuld Hall has acquired certain symbolic and representational qualities that, for those who know it, more than make up for its aesthetic shortcomings. The same cannot be said of the several small buildings which were added to accommodate growth in the post World War II period.

The first explicit attention to the quality of architecture was shown during Oppenheimer's directorship in Marcel Breuer's Members' Housing (1954-57), and in Wallace Harrison's Library of Historical Studies (1964). The Breuer design was so successful that we found only very minor changes were needed to meet members' criticisms when the housing was expanded in 1968, and again in 1973. There are now 146 garden apartment units, of various sizes, for members' use.

Robert Geddes' new office building and dining hall (1971-72) continue this recognition of the need for beauty. Unlike the existing buildings, which look out on rolling meadows edged with woods, the two new ones, which are parallel, also look inward to a cloister-like courtyard garden with fountain—a retreat of special value to the Institute which, in another figure, has been likened to an

academic monastery. The site, the roof lines, and the landscaping (by Zion and Breen Associates) connect harmoniously with the old. We can enjoy what is new, without feeling a sense of conflict between it and what already existed.

These new buildings have won the praise of distinguished critics and several prizes. They have also created an area of quiet harmony. In the short time they have been in use, the several hundred scholars who have talked and eaten in the dining hall, met, talked and listened in the seminar and lecture rooms, and worked in the offices, have all benefited from the sense of order and form which they provide. Not all have been explicitly aware of the source of their gratification, but nearly all have experienced it.

The dining hall, two stories high and clerestory lit, with its lounges, board room and garden, has contributed a great deal towards enlarging and humanizing the non-academic life of the Institute. New activities, to counter the tendency towards isolation felt by some members, arise almost spontaneously in its setting. A few new ones, to be enjoyed by all members, were organized. Dinners, on the model of the Society of Fellows at Harvard, give Institute professors a chance to invite members to share good food and conversation with those in other schools, as well as with guests from outside the Institute. Conversation classes are of special value to those members, and their

families, whose isolation comes from a shaky command of English. We had an instant success with a series of chamber music concerts with professional performers. Parties of all sorts gain in festivity in the new surroundings. All of these occasions are important in stimulating contact amongst members of the several Schools. It is an end valuable in itself, and one that sometimes bears intellectual fruit.

Our facilities are now increasingly used outside formal term time, both by individual scholars and for conferences organized around the work of particular Institute members. Of the 11 conferences held since 1971, the largest (in 1972) marked the 25th anniversary of John von Neumann's achievement at the Institute of the first modern computer. Distinguished outsiders participated with members of the Schools of Mathematics, Natural Sciences and Social Science in discussions of *The Computer and the Development of Science and Learning*, making it a learned occasion as well as a celebration.

The number of summer visitors, coming on the recommendation of individual faculty members, and usually without stipend, to use our facilities, and rent apartments at the standard rate, has more than doubled. Some, especially in classics, come to use the material gathered here by Professors Meritt and Thompson, and the excellent re-

sources of the library. Some come to work with other visitors in an informal way. This has been particularly true in mathematics. The recent peak number of such visitors was 75.

Minot Morgan, Jr., the Institute's general manager, has played a remarkably skillful and sympathetic role at the Institute for almost 25 years. The dedication and energy of the staff, which he supervises, contributes substantially to the effective functioning of the Institute, and is warmly appreciated by most of our members. This small staff is characterized by low turnover and long service. With a labor force which includes large proportions of blacks and women, the Institute has remained harmonious in a period when conflict was widespread elsewhere.

Annette Neutra Kaysen, my wife, did much to help shape the last 10 years. It was a full time job, performed with grace and distinction.

Changes in Governance

The largest part of the Institute, namely the members, has no role in its governance. The three branches which have shaped our activities are the Faculty, the Board, and the Director. Each has its own perspectives, and is alert to its privileges. The Faculty's chief responsibility in governance has been to guard its own excellence, and that of the members. One of the chief responsibilities of the Board is to the Institute's resources, their allocation and develop-

ment. The Director's most important function in the words of the By-laws is "to exercise general supervision over the Institute in respect to its academic phases." In the absence of any external judgment of the performance of either members or Faculty, what does this mean?

It is an uneasy role, as I joined my three predecessors in discovering. The Director must be qualified to judge whether the highest intellectual standards, lacking narrowness or rigidity, continue to be foremost in faculty decisions. He must interpret his judgment to the Board, composed mostly of non-academic members, and must fairly represent the Faculty's views. In practice, this has meant that the Director must advise the Board on the scholarly or scientific value of every permanent appointment, assuring the trustees that the proposed professorship is in a field large and important enough to attract excellent members, thus justifying the considerable investment of the Institute's resources. The Board must also be convinced of the standing of the candidate among peers outside the Institute. To the extent that our governance mechanism has not worked well, it has been primarily on questions of permanent appointments. This has resulted, several times in our history, in direct contact between Faculty and Board on academic issues.

In 1966, I found a breakdown in the procedure for professorial appointments which had been established by the second Director, Frank Aydelotte, more than 20 years

earlier. Under it, the whole Faculty voted on every appointment. As the size of the faculty and the diversity of its membership in background and training increased, this procedure proved increasingly inappropriate. At the outset of my term, I initiated a new procedure, relying chiefly on the recommendation of the individual Schools, but providing the whole Faculty with the opportunity for comment.

Twelve appointments were made under this new procedure with no difficulty. Also, in this period 1966 to 1972-73, we established a faculty advisory committee, composed of representatives of each of the Schools, with which I met regularly to discuss matters of current concern, as well as long-range issues of governance. This committee worked out a procedure for professorial appointments to the new School of Social Science.

Despite the procedure, conflict arose over a social science appointment in 1973, between a majority of the Faculty on the one hand, and Director and Board on the other. As a result, a joint Trustee-Faculty committee on Governance was created. That committee finished its labors only last year, and the new procedures it recommended were adopted. These involve not only matters of professorial appointments, but also broader questions of governance, including the appointment of the Director, and the control of the process of academic innovation at the Institute. The procedures are only now being applied, and it is as yet too soon to know how well they work.

Changes on the Board

The Board itself is a very different body from the one I found in 1966. At that time, the group associated with the Founders still played a large role. As the result of the institution of a retirement age, deaths, and resignations, the Board's composition has changed considerably in terms of professional activities, interests, age and geography. It now includes four academic members from other institutions, representing each of the fields of learning cultivated by the four Schools. Only four of those active on the 1966 Board are still so: J. Richardson Dilworth, Ralph Hansmann (Treasurer then, and Board member since 1969), and Harold Hochschild and Harold Linder, who are both active emeritus members. Those who joined the Board during the period, in the order of their election are: Amory Houghton, Sr. (1967-70), Thomas J. Watson, Jr. (1967-75), the late Adrian Albert (1968-73), William W. Scranton (1969-70), Michael V. Forrestal, Howard C. Petersen, William M. Roth, Donald B. Straus, Norton Simon, James R. Houghton, Robert M. Solow, Frank E. Taplin, Hanna Holborn Gray, Martin E. Segal, Elizabeth A. Whitehead, Joseph L. Doob, Sidney D. Drell, and John R. Opel.

Samuel D. Leidesdorf was Chairman of the Board in 1966. He was intimately involved with every facet of Institute affairs, from its founding until his death at the age of 82 in 1968. Harold Linder, who has served and liberally

supported the Institute since 1947, succeeded him and was Chairman 1969-73, through a particularly demanding period. J. Richardson Dilworth acted as Chairman 1973-74, generously and conscientiously devoting himself to our concerns in the face of many competing demands, as always. The present Chairman, Howard C. Petersen, was elected 1974, during arduous service as Chairman of the Trustee-Faculty Committee on Governance.

Two losses through death deserve particular mention: Barklie McKee Henry in 1966, and Edward S. Greenbaum in 1969. Both served on the Committee on the Future. They lived in Princeton, and had intimate contacts with the Institute community, sharing their energy, wisdom and charm with us.

Closer Ties to Princeton University

Our traditionally good relations with Princeton University became closer, and the extent and institutionalization of interchange and cooperation increased significantly. This is particularly striking in physics where joint efforts in astrophysics and plasma physics now play an important role in the work of both institutions in these fields. Also new is the excitement generated by our social science group working closely with the modern historians. The ties between the art historians at the University and Institute, close since Panofsky's days, have recently been strengthened even further. The intimate relationship of

the mathematicians at the two places continues unchanged. Institute professors from all schools continue to teach at the University from time to time, and University faculty members frequently spend sabbaticals at the Institute. While Bernard Lewis holds the only permanent joint appointment, there have been others with long-term shared appointments in recent years, including Carl Schorske in history, Marvin Goldberger in physics, and Thomas Kuhn in history and social science.

I believe the University has been intellectually strengthened since 1966 by the changes at the Institute. We should always remind ourselves that the Institute's very existence would have been impossible without the cooperation of the University.

The Review Committee of 1975-76, of which this Board's Martin Segal is the able Chairman, now confirms that in the opinion and experience of our members—who are the *raison d'être* of the enterprise—the Institute's excellence continues. They give eloquent testimony, and particularly those who were here during the past decade, that we are fulfilling our prime function brilliantly. I hope that as long as we continue to do so, the Institute for Advanced Study will find the financial support it must have.

CARL KAYSEN

Princeton, New Jersey
1976