

MINUTES OF REGULAR MEETING OF
THE INSTITUTE FOR ADVANCED STUDY

October 8, 1934

A regular meeting of the Trustees of the Institute for Advanced Study was held at the Uptown Club, 60 East 42nd Street, New York City, on Monday, October 8, 1934.

Present: Messrs. Aydelotte, Edgar S. Bamberger, Louis Bamberger, Carrel, Flexner, Frankfurter, Friedenwald, Hardin, Houghton, Leidesdorf, Maass, Stewart, Straus, Veblen, Wood, Mrs. Fuld, and Miss Sabin.

There were no absentees.

The Chairman presided.

The minutes of the meeting held on April 23, 1934, having been distributed, their reading was dispensed with, and they were approved.

The following report was presented by the Director and, on motion, was ordered to be incorporated in the minutes of the meeting:

"Since the meeting of the Board held April 23 last the first session of the School of Mathematics of the Institute for Advanced Study was brought to a happy conclusion on May 1. Work, however, on the part of the faculty and the students did not cease with the termination of the academic year. Some of the professors continued their daily attendance at Fine Hall far into the summer, while some of the workers remained in Princeton during the entire summer, despite the excessive heat in July.

During the course of the year it occurred to me that it would work to the advantage of higher education if annually some of these young men and women well trained in modern mathematics could bring into the secondary schools and high schools of the country the newer views of the subject which have come to prevail. I had a number of conferences with the new Superintendent of Schools of New York City, as a result of which the Associate Superintendent in charge of mathematics, Dr. Tildsley, and a committee of teachers of mathematics spent a day at Princeton observing the work of the Institute and the graduate work of Princeton University in mathematics. I am happy to report that several workers have received appointments in the New York City schools. If this experiment can be successfully extended to other large school systems in the country, there will be, as it were, a new market opened up for these highly trained university and post-university students, and it is perhaps not too much to expect that in the course of time the teaching of high school mathematics will be modernized in the United States precisely as during the last twenty years the teaching of high school science has been modernized. We have, I think, to look at the entire educational system as a whole. We cannot do the best possible work in college and in the graduate school or in the Institute unless boys and girls have been properly grounded in the high schools. Thus far the number of persons trained in modern mathematics who have gone into high school teaching has been very small. I hope that the liberal action of the Superintendent of Schools of New York City may be followed

by similar action on the part of superintendents in other cities. I have already undertaken to communicate with other superintendents in the hope of making opportunities for students of the type now being graduated from the best of our universities and from the School of Mathematics of the Institute.

In addition to those who were seeking opportunities a large proportion of the workers last year were on leave of absence from important institutions: the University of Chicago, Johns Hopkins University, Princeton University, the California Institute of Technology, the Rice Institute, University of Vienna, University of Copenhagen, Edinburgh University, University of Michigan, etc. These men have returned to their posts refreshed and stimulated by their experience in Princeton, and I have received evidences of grateful appreciation on their part for the opportunities they enjoyed last year. During the year now beginning a similar group will be in attendance, among them men holding posts in Harvard University, Massachusetts Institute of Technology, Johns Hopkins University, Princeton University, University of Cincinnati, Brown University, California Institute of Technology, University of California, University of Chicago, University of Louvain, University of Frankfurt, University of Munich, University of Cambridge, etc. Of the twelve fellows appointed in the field of mathematics by the National Research Council in this country, nine have elected to work at Princeton during the present year, enjoying the combined opportunities of the Institute for Advanced Study and Princeton University, and the European branch of the Rockefeller Foundation has appointed two fellows in mathematics, both of whom have elected to come to the Institute.

The staff of the School of Mathematics is unanimous in the belief that another mathematician, preferably an American, if an American is obtainable equal in ability to any outsider, should be added to the group at an early moment. I believe that this can be accomplished for the present without substantially adding to the budget of the School by temporarily omitting, if it proves necessary, one or two items, because the budget is an elastic budget, namely, the visiting professorship, though I hope very much that, as the resources of the Institute increase, visiting professors in the various schools may from time to time be invited to come to Princeton for an entire year or for a shorter period. On the other hand, it is at the moment more important to strengthen the permanent group than to continue uninterruptedly the visiting professorship. On this subject I shall ask Professor Veblen to speak when it comes up for consideration under the head of new business.

I reported to the Board at the last meeting that the Russian Government had called an international educational conference to meet in Moscow and that the Institute had been invited to send a representative. With the approval of the President and the Dean of the Graduate School of Princeton University, as well as our own mathematical group, Professor Lefschetz, who is Fine Professor of Mathematics at Princeton University and who speaks Russian, was named to represent the Institute. Professor Lefschetz has written me in enthusiastic terms of his reception but has as yet submitted no formal report, inasmuch as he remained abroad to represent Princeton University at an international mathematical conference held in Prague. I shall submit a brief report regarding his activities at the next meeting of the Board.

I devoted two-thirds of the summer to study in Europe with a view to securing a nucleus in the subjects of economics and politics as well as the humanistic studies. It is clear to me that in economics and politics, which should be broadly conceived as the field of social justice, we shall have to proceed somewhat differently from the method pursued in dealing with mathematics. The sort of mathematics in which scientific men are interested today has a history that is at least one hundred and fifty years old. The economics that is in vogue is upon a very different basis. More and more as I conferred with men who are dealing with economic problems both in universities and in public life, I became convinced of the fact that economics ought to be viewed as a clinical science. That is to say, men who are concerned with its teaching and investigation ought also to be men who have been in contact with practical problems of business and government. On the other hand, while the men working in economics must not be aloof from practical life, they ought not to be diverted to the performance of current tasks. William James once said, "We act forwards; we understand backwards." There are thus two dangers to be avoided: on the one hand, the danger inherent in long distance cogitation and theory; on the other, the danger inherent in doing things at the moment empirically. Other sciences - physics, chemistry, and medicine - have had to settle the same problem. In the case of physics and chemistry it has required centuries, and in medicine it has required a full century, and there are vast areas in which the scientific medical man still shrinks from practical activity, though he continued his researches on experimental animals and otherwise in his laboratory. The methods of developing economic science, which

seem to me now to be most promising, bear therefore a certain resemblance to what has happened historically in other fields, though analogies are suggestive as well as dangerous and must not be pushed too far. These methods require infinite patience - the patience of a naturalist, who is willing to observe before he turns to generalization or accepts practical responsibility for the execution of political and economic policies.

A distinguished scientist, with whom I have been discussing the problem of economics from the standpoint of scientific method which I have had to clear up before proceeding to the discussion of persons, has on reflection written me a letter, from which I quote the following:

'Naturally, I am deeply interested in your plan to make a fresh start in economics. America will provide a marvelous experimental field for acute younger men for the next few years. Whatever happens in November, this country is in a state of flux out of which some kind of economic stability has to come; the great question is what as well as when. It will be a matter of years and the end result will be something very different from the old order. I do not think that Russia offers a better field for capable observation and investigation than present-day United States. It's like a great epidemic, plague, etc., to the pathologist - an opportunity not to be invented but suddenly and sharply presented with incalculable potentialities.

If I were asked what constitutes one of the greatest attractions, at this critical era, to the alert, 'prepared' economist mind, I should say America. It's an opportunity which should not be long deferred for quiet study without anything said but for a lot of 'wood-sawing'.

That is the way one would attack a great biological catastrophic experiment such as a devastating disease plague; and the world today, with America in the forefront, is in the throes of another kind of plague - nothing less than a vast biological social plague.'

I have naturally discussed the problems of the Institute with my brother who in the field of medicine had a task not unlike my own.

and it is interesting to find that after the lapse of thirty years since the founding of the Rockefeller Institute for Medical Research he proceeded in most subjects in precisely the way in which I am proceeding in economics. He has written me as follows:

'I am led back to the beginnings of the Institute in my thinking of economics with you. I judge a kind of new start called for. If you think of the Institute's beginnings, the new start was made with essentially unknown young men: Lovene, Carrel, Opie. The only older man and thoroughly seasoned, although an individual worker strictly, was Meltzer.

Would it not be possible for you to start afresh, one, two, three men in their late twenties or early thirties? I remember your saying that you were planning as though you were in full mid-career. I think that is a splendid attitude. Your contribution might even, conceivably, be greater if you started afresh. The experiment would scarcely be dangerous, as you would surely select able young men, who could be passed on to other institutions in a few years if they failed to reach the high mark of your Institute. But environment plays a share, often a large one, in men's futures. This is surely true of the majority of the Rockefeller Institute members.'

We have thus far two commitments in this field, of the soundness of which I am thoroughly convinced: Professor Mitrany, who is at work in England and who will continue for the present his studies there; Professor Earle, to whom a tentative appointment was given pending his complete return to health. Dr. Sabin, following the instructions of the Board, visited Professor Earle and his physician during the summer, and from her I have received the following letter, dated September 18, 1934:

'In accordance with the directions of the Board of the Institute for Advanced Study, I saw Professor Edward Mead Earle both early in July and late in August of the past summer and have an excellent report to give concerning his physical condition. His physician, Doctor S. W. Schaefer, is very much encouraged, feels confident of his ultimate recovery, and expects him to be able to get back into active work in the not too distant future.

On this account I carried out the authorization of the Board, informing Professor Earle that he would be appointed to a position on half pay with leave of absence for a period not to exceed two years at a salary of Five Thousand Dollars (\$5,000.00)

a year during his leave, beginning September 1st, 1934.'

Of these two men Professor Mitrany's interest is primarily in government, national and international, and Professor Earle's in economic history. I have a list of about a dozen men in the thirties who have given great promise and who have fortunately not yet committed themselves far in dealing with the complex and controversial questions of economic theory and policy. I hope very much that by the next meeting of the Board I may be able to suggest an additional person to be added to the two whom we have already appointed. There will be no difficulty in securing coöperation on the part of the most distinguished Europeans in the field which the new school covers. I think that without exception the men, with whom I spoke, thought that the conception upon which we are proceeding is sound and important. Everything now turns upon the choice of the proper individual or individuals.

I shall at a later moment in the meeting submit resolutions covering the points, on which I have briefly touched in this report.

I suggested in my last report that I should also like to establish a nucleus in the field of the humanities. This field is one in which it is not difficult to procure at this time men of outstanding importance and ability. I am simply waiting for general financial stability and improvement before making concrete recommendations to the Board in respect to the beginning of a humanistic school.

The question of a site and building has been under consideration more or less actively ever since the Institute was founded. An early decision was rendered unnecessary by the generosity with which Princeton University has shared with the School of Mathematics its facilities in that subject. Meanwhile, I had a leisurely opportunity to think on the ground last year. I cannot say that I have yet reached any conclusion which I am prepared to submit to the Board for consideration.

In respect to building, two diametrically opposed decisions may lead to equally satisfactory results. For example, Fine Hall is a perfect embodiment of academic purpose. It adjoins the laboratories of physics and chemistry. It affords quiet as well as every possible facility for coöperation, and it contains a library, which, so I am told, is ideally adapted to its ends. If one knew Fine Hall only, one would be apt to conclude that, as each school is started, it should have its own Fine Hall. Yet at the other end of the scale, precisely opposite conditions are capable of yielding extraordinarily good results. I was myself a student at the Johns Hopkins University when the University was situated in two converted boarding-houses on Howard Street in Baltimore. There it was located for the two decades, during which it was the most influential educational institution that this country possessed. Everything was improvised - offices, library, and laboratories. The University was made in spite of all shortcomings in the way of buildings and equipment by the brilliant work and wonderful coöperative spirit of the men. I have recently read an address by Sir Joseph J. Thomson, Master of Trinity College, Cambridge, England, regarding his own education at Owens College, Manchester, from which I quote as follows:

'In those days the college was a house in which Cobden had lived; it was by no means large and we were much cramped for space. The lectures on engineering were given in what had been the stable, and the drawing office was a converted hay loft. But though the building was so poor, few universities have had such a brilliant staff of professors. There was Balfour Stewart for physics, Roscoe for chemistry, Osborne Reynolds for engineering, Thomas Barker for mathematics, W. Crawford Williamson, the great palaeo-botanist, James Bryce, who was afterwards ambassador to the United States, Adolphus Ward, the historian, who afterwards became Master of Peterhouse, and Stanley Jevons, the political economist.'

My conclusion, therefore, is that, whereas in due time, as successive schools are established, we shall try to provide them with

facilities to make coöperation easy, our great task at the present moment is the finding of men. For, while the men can get on without buildings, the building is futile without the men. If they can be combined, as they are combined at Fine Hall, results should be obtained that are as nearly ideal as is possible under human conditions.

I think I may say in conclusion with all modesty that wherever I went in Europe the fact of the existence of the Institute was known and that its possible scope and its present and future importance were appreciated. While we have done absolutely nothing to procure publicity, the quality of the staff and the students has already within the period of a single year made the institution widely and honorably known."

Mr. Hardin, Chairman of the Finance Committee, stated that the report of the Treasurer would cover the subject of finance.

The report of the Treasurer was distributed and, on motion, was accepted and ordered to be placed on file.

At the request of the Director Mr. Veblen stated the advisability of having the assurance of appropriations for grants-in-aid made a year in advance in order that the professors might have sufficient time to make arrangements with universities regarding leave of absence of candidates for grants. Thereupon, on motion, it was

RESOLVED, That the sum of Thirty thousand Dollars (\$30,000.00) shall be included in the budget for the year 1935-1936 to be distributed as follows: Twenty thousand Dollars (\$20,000.00) for grants-in-aid in the field of mathematics and Ten thousand Dollars (\$10,000.00) in the field of mathematical physics.

The Director and Mr. Veblen explained the desirability of creating an additional chair in the School of Mathematics, whereupon, on motion, it was

RESOLVED, That on the recommendation of the mathematical staff the Director be and hereby is empowered to submit, in his discretion, to the Executive Committee the nomination of an additional professor to the School of Mathematics, provided the total budget of the School of Mathematics is not substantially increased by this appointment for the year 1935-1936.

The Director stated that Professor David Mitrany was appointed as a professor in the School of Economics and Politics at a salary of \$6,000.00 a year with the understanding that it be increased to \$10,000.00 when he moved to the United States, that Professor Mitrany was devoting his entire time to work necessary to the creation of the School of Economics and Politics, that his present salary yielded him a little over £1,000, of which he paid to the English Government an income tax of almost one-third, and that his actual income was less than the living expenses of himself and family. Thereupon, on motion, it was

RESOLVED, That beginning September 1, 1934, the salary of Professor David Mitrany be and hereby is Ten thousand Dollars (\$10,000.00) a year without requiring him to come to America until, in the judgment of the Director, that step should be taken.

The Director called attention to Miss Sabin's favorable report regarding the physical condition of Professor Edward Mead Earle.

On motion, Professor Earle was made a professor in the School of Economics and Politics and was granted leave of absence for the year 1934-1935 at half pay, viz., Five thousand Dollars (\$5,000.00), with the understanding that, if necessary, this leave would be renewed on the same terms for one year from September 1, 1935.

On motion, the budget for the year 1934-1935 was increased \$9,000.00 to cover the salaries of Professor David Mitrany and Professor Edward Mead Earle in the School of Economics and Politics.

On the suggestion of the Director the Trustees considered methods to be pursued in starting the School of Economics. The consensus of opinion seemed to indicate that the School should be started modestly and as promptly as possible with a small nucleus of young and promising men of unusual intellectual endowment who would be enabled to work without pressure for results.

Mr. Frankfurter held that the social sciences ought to be viewed in somewhat the same light as law. He thought that the analogy to the progress which had been made in the medical sciences likely to be misleading and that the confusion in the realm of economics and politics was due to the fact that there had been too little disinterestedness in their pursuit. He suggested, for example, that the so-called principles or laws of economics ought to be examined in the light of their origin and that it would probably be found that they originated out of the pressure of contemporary phenomena. Something might, he thought, be gained if small groups were brought together for limited periods in the hope of uncovering and defining the real problems. He was certain that nothing could be gained if an inharmonious group were assembled and instructed merely to "research".

Mr. Stewart emphasized the importance of an early start with young men, the question of whose future relationship to the Institute could be determined by their achievements from time to time, and Mr. Veblen suggested that grants-in-aid, such as those now given in the School of Mathematics, would prove an excellent way of bringing men of promising ability to the Institute to work for a year or longer without permanently detaching them from their posts unless they developed unusual capacity. It seemed to be agreed that with the exception of a small permanent nucleus it would be unwise to make many additional appointments for terms of three or five years which would involve the resignation and withdrawal of men from their own institutions and thereby impair the freedom of the Institute in dealing with them.

The Director stated that he had given further thought to a start in the humanistic studies and that he deemed it advisable that an impartial survey be made of the remarkable facilities and resources which exist in and around Greater New York with Princeton as its center, whereupon, on motion, it was

RESOLVED, That the Director be and hereby is authorized, in his judgment, to expend not to exceed Six thousand Dollars (\$6,000.00) for the purpose of study in the field of the humanities.

The Director reported that he had received a letter, dated July 21, 1934, from Mr. Charles H. Elliott, Commissioner of Education of New Jersey, stating that the State Board of Education had granted the Institute for Advanced Study a license to confer the degree of Doctor of Philosophy upon those students who complete programs of study leading to that degree which are similar in scope to those offered in leading American universities. The Director explained that it was no part of the policy of the Institute to confer degrees, earned or honorary, but that following the advice of Mr. Hardin it seemed wise to obtain permission to do so, even though no use of the permission was contemplated.

The Director reported the gift from Mrs. Julius Sachs of twelve bookcases and a large engraving of Raphael's School of Athens, which had belonged to her late husband, whereupon, on motion, the Director was authorized to express to Mrs. Sachs the appreciation of the Board for these generous and fitting gifts which would be a memorial to her husband, a distinguished classical scholar.

Mr. Maass presented the following resolutions which were adopted by the Board:

WHEREAS the Institute for Advanced Study-Louis Bamberger and Mrs. Felix Fuld Foundation, a corporation of the State of New Jersey, owns and holds guaranteed mortgages of the Fidelity Union Title & Mortgage Guaranty Company described as follows:

- (1) Guaranteed mortgage No. 83419 in the sum of \$8,000, on premises 50 Osborn Street, Bloomfield, New Jersey;
- (2) Guaranteed mortgage No. 83484 in the sum of \$8,000, on premises 832 Magie Avenue, Elizabeth, New Jersey;
- (3) Guaranteed mortgage No. 83421 in the sum of \$15,000, on premises 13-15-17 South Fullerton Avenue, Montclair, New Jersey;
- (4) Guaranteed mortgage No. 81862 in the sum of \$36,000, on premises 458-462 Roseville Avenue, Newark, New Jersey;
- (5) Guaranteed mortgage No. 83406 in the sum of \$11,000, on premises 21-23 Bodwin Avenue, Ridgewood, New Jersey;
- (6) Guaranteed mortgage No. 83343 in the sum of \$4,500, on premises 70 Malone Avenue, Belleville, New Jersey;
- (7) Guaranteed mortgage No. 81178 in the sum of \$7,000, on premises 261 Academy Street, South Orange, New Jersey;

all of which mortgages are guaranteed and titles to which premises are guaranteed by said Guaranty Company; and

WHEREAS the affairs of said Guaranty Company are being administered by the Court of Chancery of New Jersey, through trustees appointed by said court; and

WHEREAS said court, by order of April 24, 1934, or some other date, has authorized the owners of mortgages guaranteed by said Guaranty Company to withdraw the same from the management and agency of the trustees of said Guaranty Company, upon releasing said Guaranty Company and said trustees of and from all claims, and upon paying 1% of the principal amount owing on mortgages to be withdrawn, and upon complying with other terms and conditions;

NOW, THEREFORE, BE IT

RESOLVED by the Board of Trustees of Institute for Advanced Study-Louis Bamberger and Mrs. Felix Fuld Foundation, in meeting assembled, that said Institute for Advanced Study

withdraw its said mortgages as authorized by the Court of Chancery as aforesaid, and comply with all terms and conditions with which it is necessary to comply for the purpose of effecting such withdrawal;

AND BE IT FURTHER RESOLVED that said Institute do, and it hereby does, nominate, constitute and appoint CHARLES P. SCHLEICHER, of 125 Park Avenue, City of New York, County of New York and State of New York, and CHARLES R. HARDIN, of National Newark Building, City of Newark, County of Essex, and State of New Jersey, or either of them, its attorney or attorneys irrevocable, for and on behalf of said Institute, and in the name of said Institute or otherwise, to execute release or releases of all claims of said Institute against said Guaranty Company or against William H. Kelly and J. Ashley Brown, trustees of said Guaranty Company, and to surrender policies of mortgage guaranty and policies of title guaranty, and to execute any and all other instruments and do any and all other acts necessary or proper to be done to effect withdrawal of mortgages from the management and agency of the said trustees of said Guaranty Company and to obtain for said Institute full and unconditional ownership of and right to control said mortgages.

Mr. Maass, in behalf of the Trustees personally, presented two replicas of the seal in gold to the Founders of the Institute, Mr. Louis Bamberger and Mrs. Felix Fuld, as a token of their esteem and gratitude. Mr. Bamberger and Mrs. Fuld expressed their deep appreciation of the gift which the Trustees had individually made.

There being no further business, on motion, the meeting adjourned.