THE INSTITUTE FOR ADVANCED STUDY

Historical Studies - Social Science Library

ITEMS REMOVED : MONTGOMERY, DEANE - PROF. MATH. 1951 -

1) "Protests Over Einstein's Statue," Nature, vol. 277, January 4, 1979 - accompanying letter of 1979 concerning Einstein statue.

2) Science Section, Time Magazine, February 19, 1979.

3) E(instein) = M(uch) C(riticism)2, publication not specified, December 14, 1978.

4) "End of the Bronze Age," The Wawhington Post, November 19, 1978.

5) "It's a Big Year for Einstein Memorabilia," Science, vol. 203, January 1979.

6) "A Statue Without Stature," The Washington Post, December 12, 1978.

7) "Second Congress of the Bulgarian Mathematics," January 1967 - Invitation.

Princeton, New Jersey 08540 Telephone 609-734-8375

cc: Dr. Woolf

IPN INSTITUTE
Suite 240 · 20 Nassau Street · Princeton, New Jersey 08540

June 25, 1979

Professor Deane Montgomery
Institute for Advanced Study
Princeton, NJ 08540

Dear Professor Montgomery,

Some time ago you indicated to us that it is your desire to be relieved from your duties as a member of the Advisory Board of IPN Institute. Of course, we wanted to hold on to you as long as possible within the realm of courtesy. Now that we are engaged in building the Advisory Board, it is an opportune time for us to thank you for your willingness to serve and release you from any further duties as an Advisory Board member as of July 31, 1979.

We thank you for your participation and the good will you have shown to us.

Sincerely,

Donald Hockney

Donald Hockney
Associate Director
IPN Institute

DH/sc

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

May 29, 1979

Dear Mr. Hunt,

My wife and I have just been notified that the Institute has made a gift to the cancer fund in memory of our son. We are deeply grateful for this expression of sympathy and concern.

Sincerely,

Deane Montgomery

cc. Miss Underwood

February 22, 1979

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

Dear Deane:

Caroline Underwood has forwarded the stack of materials about the National Academy of Science's statue. Thanks for sending it over.

While I too object to what is being done, I do not intend to protest to Phil Handler. You might like to know that the sculptor, Robert Berks, approached us long ago to have it done here and we politely declined.

Cordially yours,

Harry Woolf

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

February 21, 1979

Dr. Harry Woolf
Institute for Advanced Study

Dear Dr. Woolf:

Professor Montgomery thought you might be interested in seeing this. He does not plan to reply.

Sincerely yours,

Caroline Underwoods

Enclosure

SMITHSONIAN INSTITUTION
THE NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY
WASHINGTON, D.C. 20560

1979 Feb. 2

Dear Prof. Montgomery,

As a member of the National Academy of Sciences you will have heard something of the gargantuan statue of Albert Einstein which the Academy has commissioned, and for which it is soliciting funds. If, however, you have heard of the project only through the Academy's fund-raising literature or publications (e.g. News Report, Feb. 1979, p. 3) you will be unaware of how severely this proposed monument has been criticized. Not only is this mode of memorialization regarded as completely inappropriate by nearly everyone who knew Einstein personally or has gained some close acquaintance with the man through his writings, but the statue itself is regarded as very bad art by nearly everyone of competence in aesthetic matters.

True, the Academy has already committed itself very deeply financially to this monumental mistake, but it has, as far as I understand the case, no moral commitment actually to erect the statue were it persuaded that the work would not add to, but rather detract from the dignity of the Academy and of the sciences. It is from that point of view that I ask you to examine the enclosed materials: would it not be in the higher interest of the Academy and of the cultural values for whose maintenance the Academy exists, to absorb the cost of repudiation, rather than docilely allow itself to be saddled with a monstrous piece of Kitsch?

Should you be persuaded that such is the case, would you write President Handler to this effect, and send a copy of your letter to one or more members of the Council of the Academy with the request that they bring the matter up at the next meeting of that body (which takes place on February 25). or telephone

Sincerely,

Paul Forman

Paul Forman
Curator of Modern Physics

CORCORAN
GALLERY OF ART · SCHOOL OF ART
SEVENTEENTH STREET &
NEW YORK AVENUE, NORTHWEST
WASHINGTON, DC 20006
(202) 638-3211

February 5, 1979

Dr. Philip Handler
President
National Academy of Sciences
2101 Constitution Avenue
Washington, D.C. 20418

Dear Dr. Handler:

I have given quite a bit of thought to the proposed Albert Einstein sculpture designed by artist Robert Berks. I know that the issue is a terrible thorn in your side and I wish there could be an easy solution.

I personally feel that the basic idea of a gigantic sculpture of Dr. Einstein is simply inappropriate. I feel certain that Dr. Einstein himself would have vetoed such a monument. As for aesthetics, the style of the sculpture does not suit my taste; but, as you well know, aesthetics is a tricky business and I urge you to get advise from a variety of art curators and museum directors. I wish I could be more approving, but Albert Einstein is almost a demi-god. He deserves a memorial which reflects his own good tastes and instincts.

I wish you the best of luck.

Sincerely,

Peter C. Marzio
Director, Corcoran Gallery
and School of Art

PCM:lmt

cc: Paul Forman

CORCORAN
GALLERY OF ART · SCHOOL OF ART
SEVENTEENTH STREET &
NEW YORK AVENUE, NORTHWEST
WASHINGTON, DC 20006
(202) 638-3211

January 17, 1979

Dr. Phillip Handler
President
National Academy of Sciences
2101 Constitution Avenue, NW
Washington, D.C. 20418

Dear Dr. Handler:

I wish to express my disappointment with the Academy's decision to erect a monumental sculpture by Robert Berks of Albert Einstein. That one of the most creative and dynamic minds of this century is to be commemorated by such an undistinguished work is grotesquely ironic.

Yours sincerely,

Dr. Edward J. Nygren
Curator of Collections

EJN/lk

bcc Dr Paul Formon

THE PHILLIPS COLLECTION

A GALLERY OF MODERN ART AND ITS SOURCES
1600-1612 21st ST., N.W. WASHINGTON, D.C. 20009
(202) 387-2151

Copy

January 3, 1979

Dr. Philip Handler, President
National Academy of Sciences
2101 Constitution Avenue
Washington, D. C. 20418

Dear Dr. Handler:

The people in the art world I have talked with have unanimously expressed deep regret on esthetic grounds that contracts have been let by the National Academy of Sciences for the Einstein memorial sculpture.

I realize and regret that it is probably too late to make any suggestions as to how to make the generous allotted fund function for better credit to that great scientist, the National Academy, the city and the nation.

I have no precedent for our institution becoming involved in public installations but upon realizing many museum officials are rendered mute by their affiliation I am compelled, from a more independent position, to voice a protest and hope that in the future any decision to honor a great mind such as Einstein's with an art work, counsel would be previously sought from the curators and directors of the many great museums in the city.

Sincerely yours,

James McLaughlin
Curator

JM:ls

30 January 1979

Dr. Philip Handler
National Academy of Sciences
Constitution Ave. at 23rd St., N.W.
Washington, D.C. 20037

Dear Dr. Handler:

The photograph of the project for the Einstein statue in the recent Smithsonian Magazine has finally goaded me into expressing myself on the subject. While the Academy's motives in commissioning a memorial to Einstein seem to me entirely laudable, I question seriously whether that memorial should be a material one, and, in particular, whether it should take the shape the Academy is proposing to give it. Everything I have seen suggests that the statue in preparation will be wholly inappropriate to its purpose. If such a memorial is necessary - and I question its necessity - the daring of Einstein's thought can really only be evoked by a project of equal daring and intellectual force, such as Mendelsohn's Einstein Tower. I have, however, the distinct impression that Einstein's greatness as a human being expressed itself in a delicacy of feeling and a modesty that resisted grandiose or sentimental gestures, particularly on behalf of individuals.

I strongly urge that the Academy consider a living memorial such as a scholarship or lectureship, on the one hand, or a garden on the other, rather than the additional tons of bronze it proposes to add to those already encumbering this city. Consider, as a caution, the epitaph of the English architect, Sir John Vanbrugh,
"Lie heavy on him, Earth, for he
Laid many heavy loads on thee."

Sincerely,

Charles W. Millard
Chief Curator

cc: Paul Forman

cc: Wisnovsky

28 November 1978

Dear Deane:

The Institute for Advanced Study is now in the process of preparing an Einstein Centennial Celebration in honor of the one-hundredth anniversary of Albert Einstein's birth.

A principal feature of the Celebration will be a Symposium to be held at the Institute on March 4-9, 1979, dealing with the specific aspects of Einstein's scientific work. The emphasis throughout will be on both the historical context and the continuing importance of Einstein's ideas in various fields, perhaps bearing in mind Einstein's remark that "the most incomprehensible thing about the world is that it is comprehensible."

The Planning Committee for the Symposium consists of the following members:

Freeman Dyson
Herman Feshbach
Marvin Goldberger
Gerald Holton
Martin Klein
Abraham Pais
John Wheeler
Harry Woolf (Chairman)

The audience for the Symposium and its published product will be on the one hand the community of scientists of the present and immediate future and, on the other, future historians who will look to this record for some answers to the questions of how Einstein and the physics he helped to create influence, either explicitly or tacitly, the science being done today.

It is our intention that the Symposium be an occasion where scientists and scholars can reflect on what science is, and how at its best it is carried out, with specific reference to Einstein's work.

On behalf of the Institute for Advanced Study and the Planning Committee, I am writing to invite you to participate in the Einstein Centennial Symposium. The attached preliminary program will give you a sense of the substance of the meeting; further details will be sent to you at a later date.

I look forward to hearing from you soon, and very much hope that your answer will be affirmative.

Cordially yours,

Harry Woolf

Dr. Deane Montgomery
55 Rollingmead
Princeton, NJ 08540

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540
Telephone-609-924-4400

SCHOOL OF MATHEMATICS

May 31, 1978

Mr. Harry Woolf, Director
The Institute for Advanced Study

Dear Harry:

The furnace under my office is operating today, apparently in order to warm West building in case it gets too cool. This is an old complaint of mine, and admittedly I have a vested interest since the furnace makes my office and this end of Fuld a bit more unpleasant in summer. It has always seemed to me that there should be some more efficient way of handling this situation, and one which would save some energy and enhance comfort.

Sincerely,

Deane

Deane Montgomery

DM:efg

May 31, 1978

CC, TO: Carl Pope

Dear Carl:

Could you please look into this matter.

Thank you.

Harry Woolf

November 10, 1977

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

Dear Professor Montgomery:

Dr. Woolf is out of the office today, but he did ask me to thank you for your note concerning the Institute's financial statement for last year, which is enclosed herewith.

Sincerely yours,

Aida L. La Brutte
Secretary to the Director

Enclosure

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

November 8, 1977

Dr. Harry Woolf
Institute for Advanced Study

Dear Harry:

I hope you will continue the custom of sending to the Faculty early each fall the usual summary of the Institute's finances. Not everyone is interested, but many are.

Sincerely,

Deane

Deane Montgomery

DMcdu

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

9-16-77

Dear Harry,

Thanks for your very kind note. I know you would be glad to help and do not hesitate to tell you if there is anything.

We brought Dick home to receive his radiation treatment here.

Sincerely,

Deane Montgomery

September 14, 1977

Dear Deane & Kay:

I have just learned of Dick's illness, and I want to extend to all of you my deepest hopes that recovery will be possible, and my empathy for all of you in a situation which maximizes, by its very nature, the stresses and strains among us.

If there is anything I can do to be of help to you, either here or elsewhere, do feel free to call upon me.

Sincerely yours,

Harry Woolf

Professor and Mrs. Deane Montgomery
55 Rollingmead
Princeton, New Jersey 08540

March 31, 1977

Dear Deane:

Your letter of 15 March 1977, on the subject of Professor Carl Kaysen's return, arrived before I left for an extensive trip to the West Coast. Forgive me for taking so long to acknowledge its presence here and thank you for sharing your thoughts and feelings with me. I do not know what lies ahead, but I shall do the best I can to maintain harmony in our house, decency in our relations to each other, and to encourage the humane and just qualities in us all.

Sincerely yours,

Harry Woolf

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

March 15, 1977

Dr. Harry Woolf
Institute for Advanced Study

Dear Harry:

It is a misfortune for everyone concerned, including Kaysen, that he plans to return. Under our new regulations a retired director is to have the title of professor but does not have a vote in the faculty or attend faculty meetings. If he is to be here at all it would be best if he were here in such a status. The alternative would be for him to try to be a regular faculty member perhaps on the ground that he was appointed a professor in 1966. There are several arguments against this.

The first is that his appointment as a professor was highly irregular in that it was made with no consultation with the faculty, as is required by our by laws for appointment to a regular professorship. At the time of his appointment no one on the faculty knew he was a candidate for either director or professor and, in fact, almost no one had ever heard of him in any connection whatever. Furthermore, he was appointed a professor and not a professor in any particular field which carries the suggestion that it was conceived as an honorary title. The second argument is that the new regulations for a retired director have been carefully drafted and have been widely accepted by everyone. The third is that having him in this status of retired director would be best for the Institute and everyone in it since his presence in the faculty would be divisive. Oppenheimer lived several months after retiring as director but did not attend faculty meetings during this time.

I regret that he apparently feels he has priority for the Wheeler house. On the contrary, Institute tradition and precedent would give priority to those of his colleagues who have been here longer.

There will be deep resentment if he attempts to assert himself in these matters.

Sincerely,

Deane

Deane Montgomery

DMcdu

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540
SCHOOL OF MATHEMATICS

March 28, 1977

Dear Harry,

A friend at M.I.T. tells me that Kaysen is negotiating with the Sloan Foundation about a 3 year job making a survey of education. I don't know how this fits in but it occured to me it might be relevant.

Deane

December 9, 1976

Dear Deane:

Thank you very much for your two letters of 1 December, together with the materials you were kind enough to attach to both. It is a part of the educational process which I need badly and I am grateful for your personal and private pedagogy.

I think with regard to the matters you raise in the letter going to Professor Doob that there is already a common understanding or at least a background of one, and I propose to keep that awareness very much alive.

As for the reference to Mrs. Weyl and the possibility of a Hermann Weyl Chair, I am wholly with you. I should like to meet with the School of Mathematics on this question and discuss strategy and tactics. Perhaps the School would like to invite me to one of its regular Faculty meetings for this purpose. Do let me hear from you.

Sincerely yours,

Harry Woolf

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

December 1, 1976

Dr. Harry Woolf
Institute for Advanced Study

Dear Harry:

I enclose some correspondence concerning an idea for fund raising, in case it might be of some interest. I talked to Professor Selberg about approaching Mrs. Weyl, but nothing was done. I was told that one of the trustees, Mr. Taplin, is well-acquainted with Mrs. Weyl, so it appeared that the best approach might be through him, or some other trustee, or the Director. Naturally you will want to see whether or not this fits into your general plans, and to decide on an appropriate time, if any.

Sincerely,

Deane

Deane Montgomery

DMcdu
Enclosures

July 30, 1975

Dr. Carl Kaysen
Institute for Advanced Study
Princeton, N. J. 08540

Mr. Howard C. Petersen
135 South Broad Street
Philadelphia, Pa. 19109

Dear Sirs:

I was very pleased to receive Mr. Petersen's letter of July 11. My colleagues and I are considering the best way to make an approach and will proceed a little later.

Miss Goldman had relatives in the firm of Goldman Sachs which seemed to give some merit to my suggestion. I will mention this to others in the hope that the idea will either be used or replaced by a better one.

Sincerely yours,

DM:MMM

Deane Montgomery

HOWARD C. PETERSEN
Chairman of the Board

THE
FIDELITY
BANK

BROAD & WALNUT STREETS
PHILADELPHIA, PENNA. 19109
TELEPHONE 215 985-8384

July 11, 1975

Professor Deane Montgomery
Institute for Advanced Study
Princeton, New Jersey 08540

Dear Professor Montgomery:

The Director and I appreciate your letter of July 2nd, and we welcome the faculty's effort to assist in meeting the Institute's financial problems. We think the idea that Mrs. Hermann Weyl should be approached for the endowment of a professorship in memory of her late husband is an excellent one. It seems to us that you or one of your colleagues might be the appropriate person to make the initial approach.

As far as the family of Hetty Goldman goes, to the best of my knowledge there is little prospect there. Her own will, as you know, in effect left her house to the Institute. We used it for a while, and have now sold it. The balance of her estate, which was modest, was divided between Bryn Mawr and Radcliffe, after some bequests to members of her family.

Thank you for your continuing interest in the corporate aspect of the Institute's affairs.

Sincerely,

Howard Petersen

July 2, 1975

Dr. Carl Kaysen
Institute for Advanced Study
Princeton, NJ 08540

Mr. Howard C. Petersen
135 South Broad Street
Philadelphia, PA 19109

Dear Sirs:

It was good to hear about the establishment of a fund for the von Neumann professorship with the IBM gift.

In this connection it has occurred to a number of us that a possible way to raise money might be to establish one or two other name professorships for example, say, a Hermann Weyl Professorship in mathematics. Mrs. Weyl is a wealthy woman living in Switzerland and it is at least conceivable that she could be interested in making a contribution for such a purpose and that others, both individuals and foundations, would be interested in contributing also.

I don't mean to insist on any one name in mathematics or any other field. It happens that Weyl had family connections of some wealth, and the same is probably true of the late Professor Hetty Goldman of the School of Historical Studies.

Sincerely yours,

Deane Montgomery

DMcdu
CC: Mr. Ralph Hansmann
Mr. Minot C. Morgan, Jr.
Mr. Martin Segal

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

December 1, 1976

Dr. Harry Woolf
Institute for Advanced Study

Dear Harry:

I enclose a copy of a letter written to Doob on March 4, 1975 and a copy of one page of a table on finances circulated by Kaysen to the faculty on February 11, 1975.

Sincerely,

Deane

Deane Montgomery

DMcdu
Enclosures

March 4, 1975

Professor J. L. Doob
Department of Mathematics
University of Illinois
Urbana, IL 61801

Dear Joe:

To answer your last question at once, I would advise a prospective young faculty member to come to the Institute because I believe it has been a uniquely useful institution and that, for this reason, it will somehow manage to survive. Nevertheless, it is in serious financial trouble, as has been rather widely understood for many years. This trouble has been caused mainly by expansion without adequate new funds. Below are a few remarks which give reasons for this statement and answer some of your questions.

1. The Institute receives government and some foundation funds to support temporary members, but in its history has received almost no other gifts for operating expenses. Almost nothing had ever been added to the Bamberger endowment until some restricted funds were recently added for social sciences. Also some funds for mathematics have just been added from IBM and Mrs. Veblen.

2. For the first 20 years of its existence the Institute operated on its income from dividends and interest. In the 1930's the Institute expanded into physics and built new housing, but raised no new funds for the purpose. In a business a new building may add income, but in an academic institution its maintenance is an additional expense.

3. One of the Trustees stated in 1966 that the Institute required another 10 or 15 million to support its operations at that time, and that for expansion it would need still another 10 or 15 million. Other trustees made similar remarks and it was my understanding that expansion would not be undertaken unless such sums were raised. Unfortunately events took a different course.

4. During 1962 to the present about 8 million has been taken from endowment for buildings and for such capital expense as major repairs.

5. The Director recently prepared a table showing expenses since 1962 and expressing them as a percent of the portfolio. The above capital expenses were not included in the table, but if they were added to give the total actual expense then the figures given would be increased on the average by over $600,000 per year.

6. Of the 41 million in the portfolio for 1974-75 about 4 million is reserved for social sciences, so the general endowment is really 37 million and is, therefore, less than in 1962.

7. No one doubts that Institute funds have been prudently invested, but there is doubt that expenses have been prudently supervised. If the average capital expense of $600,000, mentioned above, is added, then the Institute's rate of spending has been over 5 percent since 1962 and over 7 percent since 1969 (much more recently). Presumably the endowment should be managed so that, on the average, it increases 5 or 6 percent a year to offset inflation. With expenses at 5 percent, not to speak of 7 percent or more, this means the required total yield of dividends plus appreciation is 10 or 11 percent. Possibly it is risky to count on this for the long pull. At any rate, since 1962 something hasn't worked well.

8. The amount the Institute makes available from its own funds for visitors in mathematics has been constant at $105,000 per year for 10 or 12 years. The amount spent for assistants in mathematics has increased some in this time. Mathematics has made an effort to get as much outside support as possible for temporary members and at times has used rather little of the Institute's allowance for this purpose. However, this is difficult now because some of our former sources in the Defense Department do essentially nothing in basic research at present.

9. The flow of visitors through the Institute is what gives the Institute much of its impact on the academic scene, and is one of the main justifications for its existence. This could not occur with the same effect and usefulness without a permanent faculty of the highest quality.

10. What is needed is an effort to find more funds for current operations and especially more endowment. If the Trustees had a better understanding of the Institute they might be willing to help more.

Sincerely yours,

Deane Montgomery

DMcdu

SUMMARY OF IAS OPERATIONS
1962-3 - 1974-5

TABLE I

Academic Activities

	Assets & Expenditures ($millions)			Academic Expenditures ($thousands)			Academic Personnel		
Acad. Year	(1) Port-folio[1]	(2) Oprtng. Expnses.	(3) Ratio 2:1	(4) Faclty.	(5) Members IAS	(6) Members Outsd.Fnds	(7) Faclty	(8) Mmbrs.& Assts.	(9) Secret. Librar
62-3	39.72	1.56	3.92	657	205	298	20	105	22
63-4	44.94	1.63	3.63	666	244	358	19	112	22
64-5	48.08	1.92	3.98	812	348	345	21	108	22
65-6	47.89	2.09	4.37	903	331	386	23	108	23
66-7	45.02	2.28	5.06	885	404	395	21	117	25
67-8	51.15	2.34	4.68	927	389	464	20	121	27
68-9	56.03	2.40	4.28	996	389	608	20	126	27
69-70	49.75	2.86	5.75	1093	515	540	22	132	26
70-1	50.21	2.96	5.90	1219	304	875	25	131	38
71-2	52.65	3.40	6.46	1374	422	810	26	136	42
72-3	56.48	3.53	6.25	1441	472	840	27	133	42
73-4	51.79	3.94	7.61	1546	511	870	28	155	45
74-5	41.80[2]	4.23[3]	10.13	1562	633	865	26	163	42

[1]Average of month-end values

[2]Average of 7 monthly values

[3]Forecast

OFFICE OF THE DIRECTOR

I.A.S.

Memo to:

Memo from:

Date:

NOTE: Prof. Montgomery has an appointment to see you on Tuesday, Sept. 21, 2:00 p.m. (courtesy call)

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

September 17, 1976

Dr. Harry Woolf, Director
Institute for Advanced Study

Dear Dr. Woolf:

I enclose a copy of a letter I wrote to Doob who had written to ask my opinion of Mrs. Stern's history of the Institute.

With best regards,

Deane

Deane Montgomery

DMcdu
Enclosure

July 21, 1975

Professor J. L. Doob
3430 Quartz Creek Road
Merlin, OR 97532

Dear Joe:

Beatrice Stern's history is a poor source for gaining understanding of the Institute and its problems. It contains some facts about the administration but it is prejudiced, and filled with mistakes. A major shortcoming is that it contains almost nothing about the Institute's achievements. The Institute has been a highly successful institution, but this is not clear from Mrs. Stern's book.

She and her husband (who was dead) had been friends of an acquaintance of Oppenheimer's and she had dabbled in journalism. She was hired by Oppenheimer and Leidesdorff. Her treatment of Veblen is based on talks with a couple of his enemies, and is evidently intended to blacken his name. His great constructive influence is obscured. Professor Morrey of Princeton's Art Department was helpful in the early years and he too fares badly. She deprecates Mr. Maas who was Chairman of the Board for several years. It is incidental, but her remarks about Selberg and myself are unfair.

She did not have the training or capacity to understand the purposes and contributions of the Institute. By concentrating on its quarrels and recounting these in a biased way she has given a distorted picture which is unjust to a great institution. A reader of her book with little reliable information will be seriously misled. The fact that her book is boring is a minor fault compared to the others.

Most of us were friendly to her when she was here. She scarcely discussed the Institute with me and I was shocked when I first read her book about one year ago. She seemed embarrassed and uncomfortable the last time I saw her and I now see why.

I enclose a copy of my obituary of Veblen which contains a few scraps of information about the early history of the Institute. The past may be of some interest, but our main job is to get on with the future.

Sincerely,

DMedu
CC: Dean Pelikan
Mr. Segal

Deane Montgomery

September 10, 1976

Dear Professor Montgomery:

Thank you so much for sending me the offprint of your statement on the death of Oswald Veblen. I appreciate having it both as a historian of science and as someone interested in great figures, and also to know more of your own work.

Sincerely yours,

Harry Woolf

Professor Deane Montgomery
School of Mathematics

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

Sept 3, 1976

Dear Dr. Wolf,

I enclose an obituary of Veblen which contains a few bits of information about the development of the Institute.

Deane Montgomery

April 4, 1975

Dear Professor Montgomery:

Thank you for your reminder of April 2. Attached is a copy of an announcement to the Faculty of what will be done in this matter.

Sincerely yours,

Carl Kaysen

Professor Deane Montgomery
School of Mathematics

cc. Mr. Morgan

April 4, 1975

Memorandum to the Faculty

Earlier this year the question was raised whether the Institute's securities list would be made available to the Faculty. I have discussed the matter with Mr. Petersen and the Finance Committee. We agree that it is appropriate to make available for inspection by the members of the Faculty the securities list of the Institute on a regular basis.

Our new accounting procedure in which the portfolio is measured in terms of units that fluctuate in value with market value of securities produces quarterly valuations for the unit, and for each Fund in our holdings. We will make these quarterly valuations and the portfolio composition for the corresponding month-end available in Mr. Morgan's office for inspection on a regular basis by members of the Faculty.

The materials for the first quarter will be regularly available after 15 October; for the second quarter, after 15 January. Because the third quarter materials must be prepared at the same time as the Controller's report and budget for the spring Board meeting, these materials can be made available only after the beginning of May. Year-end materials are not ready until after the annual audit and, therefore, will be available in early September. This procedure will begin with the third-quarter materials for this year, which will be ready after May 5.

Carl Kaysen

Professors Clagett, Elliott, Gilbert, Gilliam, Habicht, Lavin, Setton, Thompson, White

Professors Borel, Gödel, Harish-Chandra, Langlands, Milnor, Montgomery, Selberg, Weil, Whitney

Professors Adler, Bahcall, Dashen, Dyson, Regge, Rosenbluth

Professors Geertz, Hirschman

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

April 2, 1975

Dr. Carl Kaysen
Institute for Advanced Study

Dear Dr. Kaysen:

At a faculty meeting last fall I asked whether the Faculty could occasionally see the list of securities in the Institute endowment, as is done in many institutions. In October you wrote a letter saying my question had been referred to Mr. Petersen and that you would give me the answer later. So far I have heard nothing. I wonder if you could give me the information now.

Sincerely,

Deane Montgomery

DMcdu

cc. Mr. Morgan

October 25, 1974

Dear Professor Montgomery:

Mr. Morgan has told me of your conversation with him about the Faculty's access to reports in the Institute's investment portfolio. As I promised I would at the last Faculty meeting, I have raised this question with Mr. Petersen. He wishes to discuss it with the Finance Committee before coming to a conclusion. I will let the Faculty know as soon as some conclusion has been reached; one is not likely until the December meeting of the Executive Committee.

Sincerely yours,

Carl Kaysen

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

with any other documents on Bethe which are sent

Jan 26, 1973

Dear Mrs. Bartell

I have asked to have copies of letter to me from Doe and Davis attached to the faculty minutes. I also wish these sent to the trustees. Can you ascertain whether this will be done and let me know?

Sincerely

Deane Montgomery

phoned "yes" on 1-17-73

1973

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THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

Sept 22, 1932

Dear Mrs. Bartell,

I regret that my wife and I can not go to the cocktail party for Prof and Mrs. Langlands.

Deane Montgomery

July 21, 1972

Professor Deane Montgomery
School of Mathematics
The Institute

Dear Professor Montgomery:

Your letter of July 12 reached my office when I was away. I have now had the opportunity to consult with Mr. Morgan about this situation. I am told by him that the boiler in the Library is now in good repair and is functioning reliably. I'm sure every effort will be made to keep it that way.

Sincerely yours,

Carl Kaysen

CK:MVA

cc: Mr. Morgan

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

July 12, 1972

Dr. Carl Kaysen
Fuld Hall

Dear Dr. Kaysen:

Some time ago I wrote to Mr. Morgan and Mr. Pope, with a copy to you, asking if the furnaces under my office could be shut down for the summer. Since then they have operated only part of the time, which is some improvement. As a solution I suggested either obtaining a reliable boiler in the Library or running a steam line from West Building to the Library. No one has replied, and I wonder if you would be willing to tell me what is planned.

Sincerely yours,

Deane Montgomery

DM:MMM

Deane Montgomery

PROFESSOR MONTGOMERY'S CHILDREN:

Mary	August 21, 1937
Richard	August 17, 1942

CROSS REFERENCE

FILE: Montgomery, Deane

RE: Plans of Dr. Goldstine

LETTER DATED: 2-10-71

SEE: Former Permanent Members - Herman Goldstine

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

August 18, 1969

Dr. Carl Kaysen
Institute for Advanced Study

Dear Dr. Kaysen:

Thank you for letting me know that air conditioning for Fuld Hall is being considered. I once spent several weeks at Tulane University in a building which is larger than Fuld Hall and was built of stone about 1870. It was comfortably cool on numerous 90-degree days. Air conditioning is now a necessity rather than a luxury and the other academic buildings need more of it too. Fuld Hall will have to be air conditioned in time and it should be done soon. It is important to properly maintain and improve our present buildings, and Fuld Hall has been somewhat neglected.

Sincerely,

Deane Montgomery

August 13, 1969

Dear Deane:

Thanks for your note. We have arranged a house for Atiyah at 24 Haslet Avenue which he will be renting for a year and seeing if he wants to buy. There may, of course, be other houses available for him to buy. All the arrangements were made directly between Atiyah and Mike Morgan, and I understand that Atiyah is arriving about the beginning of September.

As far as air conditioning Fuld Hall goes, this is primarily, as you realize, a question of expense. The new mechanical installations that will serve the new building will be so designed as to have the space for pumps and the pipe capacity to provide chilled water to Fuld Hall for air conditioning. The chief problem of expense arises because the heavy construction of Fuld Hall makes quite difficult the task of breaking through the walls from the corridors to bring the cold air ducts into the rooms. We are still looking at this, and I am expecting to have some rough cost estimates in the near future.

Sincerely yours,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

August 6, 1969

Dr. Carl Kaysen, Director
Institute for Advanced Study

Dear Carl:

It seems to me it would be a good idea to air condition Fuld Hall sometime soon. I wonder if you could let me know whether this is being planned.

Could you tell me where Atiyah will live, or at least what is available for him?

Sincerely yours,

Deane

Deane Montgomery

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

August 4, 1969

Dr. Carl Kaysen
Institute for Advanced Study

Dear Carl:

The men whose names I asked are members of the Board of Trustees so that their names are a matter of public knowledge. Others may be added later, but this is not a reason to attempt to keep the present membership secret.

The matter would be unimportant except that it is a reflection of your general policy of refusing to give adequate information and to use normal academic procedures. The Institute cannot continue as a place of excellence under such a policy.

Sincerely yours,

Deane

Deane Montgomery

August 1, 1969

Dear Deane:

I have just returned to find your letter of 28th July. As I think I told you earlier, as soon as we have completed the list of Trustees I will make it available to you. The reason why it is not now ready is that we have not yet concluded the process of invitation and acceptance. As soon as we have you as well as other members of the Faculty will be informed of the results.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

July 28, 1969

Dr. Carl Kaysen

Dear Carl:

A few days ago I asked your office the names of the Trustees who were elected in April and have accepted. In May and June I asked a similar question, and on all these occasions I received no answer. Will you please send me this information and tell me why it is not always fully available?

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

July 24, 1969

Prof. Montgomery came into the office this morning with a letter he had received from NSF informing him of the grant. He requested a copy of our letter from Mr. Levin and after mentioning this to Mr. Morgan I sent him one.

AEW

Prof. Montgomery also mentioned his request for a list of the new Trustees(mentioned to REB). I explained that he hadn't recd. a list as the list wasn't complete yet. Upon ~~xhex~~ mentioning this to Mr. Morgan I discovered he had told him the same thing only a few weeks before.

3.
+

This letter written by Andre Weil is included and was sent to Montgomery after he objected to Kaysen. A. Weil because Jack Marcus was keeping a lot of baby Pheasents in the cellar under Deanes office.

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

Kaysen

July 16, 1969.

SCHOOL OF MATHEMATICS

Professor Deane Montgomery
Institute for Advanced Study
Princeton, N.J. 08540

Dear Deane:

It is my understanding that Fuld Hall is being converted into a Pheasant Breeding Farm, and that, for what must appear to everyone as narrowly selfish motives, you have raised objections against this excellent plan.

Had you canvassed your colleagues first (as was your obvious duty), you would have discovered that there is widespread and enthusiastic agreement in favor of the aforesaid project - it being understood, of course, that a bonus of a brace or two of those valuable birds would be distributed at Christmas, Thanksgiving and other suitable occasions, to all members of our Faculty. This would go a long way towards dissipating any lingering doubts in the minds of John Milnor and other distinguished scholars and scientists, who, for unaccountable reasons, still hesitate about joining the Institute.

I should be obliged if you would formally communicate these views of mine to all those who are in any way concerned with or interested in the Pheasant Project (first and foremost, of course, our Director).

Yours sincerely

A. Weil

A.Weil, S.O.B.

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

June 13, 1969

Mr. Minot C. Morgan, Jr.
Institute for Advanced Study

Dear Mike:

I understand the electrically-fired boiler in the Library has not been in working order since last August. I hope it can be fixed soon or perhaps replaced with a gas-fired boiler ~~which~~ would no doubt be cheaper.

Steam is used to warm the Library when it becomes too cool. During the summer and especially in these 90-degree days, an alternative would be to shut off the cooler for a time, say by a Honeywell control, and blow in some of the 90-degree air from outside. Another way to let fresh air into the Library would be to make alterations so that some windows could be opened.

Since the boiler now being operated is under my office, I frankly admit a personal motivation for these suggestions, which I have been making regularly for several years.

Sincerely yours,

Deane Montgomery

DMcdu
CC: Dr. Kaysen

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

June 9, 1969

Mr. Minot C. Morgan, Jr.
Institute for Advanced Study

Dear Mike:

I hope the furnace under my office will not continue to operate much longer this summer as the heat and noise are unpleasant. The furnace room is currently being used to raise about a hundred fair-sized young chickens or pheasants, as I discovered first by ear and nose. I hope they can be removed soon.

Sincerely yours,

Deane Montgomery

DMcdu
CC: Dr. Kaysen

THE INSTITUTE FOR ADVANCED STUDY, Princeton, New Jersey
Office of the Director

COPY

June 7, 1969

Dear Deane:

Your letter of 3 June is simply not responsive to mine of May 23. I am sure that Miss Underwood acted at your request, and I of course saw the Minutes of the 16 April meeting. My point is simply to emphasize that the individual faculties cannot alone decide on how many members they can invite without reference to the situation in the Institute as a whole. Therefore, I think the practice of writing informal letters of invitation in a situation in which the possibility of adding another member is in doubt is unwise.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY, Princeton, New Jersey
Office of the Director

COPY

May 23, 1969

Dear Deane:

In accordance with the School's request I have written a formal letter of invitation to Robert M. Seymour, a copy of which is attached.

The procedure in this matter troubles me. Mr. Seymour will be the 64th member in the School for the first term, and as I am sure you know, we are already very crowded; yet Miss Underwood wrote an informal letter of invitation to Mr. Seymour before I was aware that the invitation was to be extended. I think this procedure should be avoided. There is always some uncertainty about how many invitees will accept, and I think last minute invitations should always be carefully considered in the light of the then state of acceptances rather than in the terms of some preconceived number.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

Attachment

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

May 25, 1948

Dear Carl,

A Tigal is concerned about housing and I hope everything possible will be done for him especially since he clearly has priority. When I saw him recently he again commented on the cost & scarcity of houses in Princeton and remarked that anyone who considers salaries high enough may at least seriously contemplated buying a house.

It seems to me that we can not afford to lose Milnor and again I hope everything possible will be done. The number of men on the level we want is extremely small. Andre has commented to me to the same effect, and although, unlike me, he is reluctant to have negotiations, he feels we must be competitive.

Your proposed new program appears to me to be unsuitable for the I.A.S. Though possibly it would be suitable for the Woodrow Wilson School, I am disappointed, as is the majority of the faculty, that you are so reluctant to consult with the faculty in an effective way. Sincerely,

Deane Montgomery

May 29, 1969

Dear Professor Montgomery:

As you see by the attached I have taken care of your travel expenses. I also enclose a copy of the list of the Board of Trustees. This does not include the new members, but as soon as that list is made up, I will see that you get one.

I hope your stay abroad has been satisfactory in every way, and your trip back a good one.

Sincerely,

Mrs. Paul Bortell, Jr.

Professor Deane Montgomery
Institute for Advanced Study

Enclosures (2)

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

April 25, 1969

Dr. Carl Kaysen
Institute for Advanced Study

Dear Carl:

I will talk with Adler this morning. We revised our standard grants recently and any change would have to be made by our school as a whole. There are sometimes differences in customs in different fields so that uniformity is not always possible, but an exchange of information is a good idea.

Sincerely yours,

Deane Montgomery

DMcdu
CC: Dr. Stephen Adler

April 24, 1969

Dear Deane:

The physicists are in the process of systematizing their stipend practices, and I know your department has recently suggested changes in your own. As far as first-level or standard grants go, I think the practices of both departments should be as nearly uniform as possible, since they are largely financed out of NSF or Air Force money in both cases. Accordingly, I have asked Steve Adler to get in touch with you to discuss the possibilities of an agreed schedule. Stipend levels, the definition of the length of the term, and the number of additional months that are permissible and at what rates, are all involved. The need for agreement, as I see it, refers only to standard grants. I think each department should remain free, as they now are, to deal with people who have advanced beyond the immediate post-Ph.D. stage in whatever way is most suitable to the situation of the individuals whom they are inviting.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

cc: Dr. Stephen Adler

April 11, 1969

Dear Deane:

I talked briefly with Milnor on the phone yesterday. He asked that we don't press him for too immediate a decision, and he agreed to let me know when he would next be in Princeton so that we could talk. However, he did not at this moment have a definite date.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

January 17, 1969

Dear Deane:

The recommendation that the Faculty of Mathematics made at its last meeting (item 29, Minutes of January 13), is an excellent one. I am changing the words a little, simply to suggest the possibility of exceptions without spelling it out. Accordingly, the sentence "In general, members are expected to be in residence during term time except for short absences" will appear in all original letters of appointment from now on in the way the batch you are just getting shows. I also think the same phraseology should be used in letters for the other faculties as well.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

December 31, 1968

Dear Deane:

Hearing no questions raised, I have today forwarded the nomination of Atiyah to the Trustees with a request for early action. You might let your colleagues know.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY, Princeton, New Jersey
Office of the Director

COPY

(See Montgomery + DM's file)

December 6, 1968

Dear Deane:

In looking over the past Minutes of the Faculty in Mathematics I realize I had failed to comment on resolution 7 in the Minutes of the meeting of October 28 when you recommended an increase in the stipend grants. I am somewhat skeptical of the wisdom of the additional $500 for a third child and would consider it better to stop the additional subsidy at the second child. I have checked, and as far as I know this issue has not come up; and I wonder whether you would reconsider this matter.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

December 4, 1968

Dear Deane:

Glad to get the good news about Michael. Would you please see that the usual material is prepared for circulation to the Faculty? I will get the whole thing done as soon as feasible.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

Dictated by Dr. Kaysen
over the telephone and
signed in his absence

October 21, 1968

Dear Deane:

Below is a revised version of the fourth paragraph on page 2 of the Draft Minutes of the Faculty Meeting. I think it represents somewhat more precisely my remarks on these points.

"The Director said that the Trustees had talked with him in terms of expansion of the activities of the Institute at the time of his appointment. Perhaps he should have asked the Trustees at that time what the views of the Faculty were; in any event, it was in that context that he had accepted the appointment. Further, he pointed out that, on any comparative standard in relation to other private academic institutions in the United States, the Institute operated on an unusually secure financial basis with nearly 80% of its expenditures covered by the Institute's own funds. The way to raise money was to be more venturesome in spending what we had."

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

DRAFT OF FACULTY MINUTES

The Director said that the Trustees had talked with him in terms of expansion of the activities of the Institute at the time of his appointment. Perhaps he should have asked the Trustees at that time what the views of the Faculty were; in any event, it was in that context that he had accepted the appointment. Further, he pointed out that on any comparative standard in relation to other private academic institutions in the United States, the Institute operated on an unusually secure financial basis with nearly 80% of its expenditures covered by the Institute's own funds. The way to raise money was to be more venturesome in spending what we had.

Revision - paragraph 4, page 2

October 16, 1968

Dear Deane:

There doesn't seem to be a Faculty Secretary at the moment. I wonder if you would mind acting as Secretary and preparing the Minutes of tomorrow's meeting.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

September 27, 1968

Dear Deane:

Earlier this year you raised two questions on which you felt the Faculty should be informed--the contents of the application to the NSF and the financial picture for the past year. On the second, early next week I will be able to circulate to the members of the faculty the appropriate information, both about the budget and the asset and earning picture for the Institute. As to the first, you raised the question in connection with your concern about what kind of commitments might attach to the use of a new building that was partially financed by NSF funds earmarked for the social sciences. This issue has now become moot. I have learned, to my disappointment, that the total NSF allocation to the particular category of funds on which I had hoped to draw is $200,000 for the current fiscal year. In the light of this, it seems to me useless to press a formal application.

I hope at an early meeting of the whole Faculty to make a report on the general question of the new buildings and financial matters related thereto.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

September 9, 1968

Mrs. Paul Bortell
Institute for Advanced Study

Dear Mrs. Bortell:

I should like to have you send our department a copy of the letter from the National Science Foundation to Dr. Kaysen concerning the cut in funds for the current year.

Sincerely yours,

Deane Montgomery

Deane Montgomery

DMcdu

Crossed with Dr. Kaysen's letter & the Select Faculties enclosing NSF letter.

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

New Orleans
May 16, 1967

Dear Mrs. Bartels,

I shall not be able to attend the faculty meeting on June 9. I plan to fly to London at 10 AM that morning. I will go to New York the evening before (or late afternoon).

I will return to Princeton from New Orleans on June 2.

Sincerely,

Deane Montgomery

CROSS REFERENCE

FILE: Montgomery, Deane - Faculty

RE: New building program - 1968

LETTER DATED: June 27 and June 28, 1968

SEE: Trustees' File - Committee on the Future

THE INSTITUTE FOR ADVANCED STUDY, Princeton, New Jersey
Office of the Director

COPY

May 17, 1968

Dear Deane:

I have written to Atiyah this morning in the sense of our conversation yesterday and hope that this will help push him in the right direction.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540
SCHOOL OF MATHEMATICS

Feb 19, 1958

Dear Carl,

I agree with Professor Selberg that my tones were too loud.

One of our basic desires is to feel assured that we can continue our operation as in recent years. You stated on many occasions that we could do so and that any new group would not be allowed to interfere with the groups already here. Last week you appeared to suggest that this might not be the case, and it would be important to have reassurance on this point.

Sincerely,

Deane Montgomery

CROSS REFERENCE

FILE: Deane Montgomery

RE: Recommendation to Rollins College

LETTER DATED: 12-13-67

SEE: Hill, Donald - in Dr. Kaysen's "Legal" file

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

October 31, 1967

Professor Deane Montgomery
School of Mathematics

Dear Deane:

We now have the annual report from Haskins & Sells. The operating deficit as shown in this report is approximately $680,000.00.

Cordially yours,

Minot C. Morgan, Jr.
General Manager

MCM/op

cc: Dr. Carl Kaysen

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

September 7, 1967

Dr. Carl Kaysen
Institute for Advanced Study

Dear Carl:

I wrote a short letter to you at the time of the June faculty meeting which I was unable to attend. You may not have received it, so I'm writing again to mention a point in that letter.

The official Institute deficit for the year ending July 1, 1966 was about $570,000 and may be higher for the year ending July 1, 1967. This official deficit, like those of other years, does not include capital expenditures of large or fairly large size. Such expenditures have probably averaged around $200,000 a year for the last ten years, so that the total current deficit is in reality more than $800,000 per year. This is a drain on the Institute's real wealth, whatever may happen to the market value of its securities. Moreover, the deficit would be still larger without substantial government grants, which are always slightly uncertain, and in any case it may not be desirable to become too dependent on them. It seems clear that many more millions of endowment are needed to justify our present scale of operation, and that no new building or significant expansion should be undertaken before adequate new funds are available. A government loan at low interest would not be an answer to the problem.

Sincerely yours,

Deane

Deane Montgomery

DMcdu

September 12, 1967

Dear Deane:

I learn that I was misinformed in respect to the NSF's position on Callen, the physicist, and Lieberman and Landweber. The Foundation is not prepared to increase their stipends; it will approve our paying each of them supplementary stipends up to $2,000. Therefore, I think it is up to you to calculate what supplements, if any, you wish to recommend in the cases of Lieberman and Landweber.

I am sorry for this confusion, but it is apparently the product of a telephone discussion.

Cordially,

Carl Kaysen

Professor Deane Montgomery
School of Mathematics
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

June 6, 1967

Dr. Carl Kaysen

Dear Carl:

As you know, I will be unable to attend the faculty meeting on June ninth. For this reason I am sending along a couple of remarks on the topic to be discussed.

1. In arranging for offices it is best to have the offices for people in any one discipline as close to each other as possible.

2. Before much expansion can be done in building or otherwise, new funds should be raised; the large deficits now being incurred by the Institute are unsound. Moreover, outside support for temporary members on the present scale is not a certainty, and may not be desirable.

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

April 6, 1967

Dear Carl,

Thank you for your memorandum. It is true that complaints of the staff should be made to Mr. Morgan or to you. In the past the reason, of course, that complaints reached others is that legitimate complaints to proper channels often appeared to do little good and occasionally appeared to do harm. On a recent occasion a complaint was made - of which we mentioned Ruben made - and it was suggested that consideration be given to making it elsewhere. It is good to know that it would be properly received.

Sincerely,

Deane

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

April 3, 1967

Dear Carl,

I wish to invite you to lunch at the Princeton Inn sometime in the next couple of weeks if it is possible for you. Tentatively may I suggest April 10, 14, or 17 at about 12:30?

Deane

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

March 28, 1957

Dear Carl,

Yesterday I intended to make one remark which slipped my mind. It is my belief that, on the average, the Institute should bear some reasonable part of our stupid budget in reality as well as on paper.

Cordially,

Deane

2 p.m. - Tuesday March 28

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

March 24, 1967

Dear Carl,

Our department would like to meet with you to discuss the budget and have suggested either Monday April 3 or Wednesday March 29 at about 10 AM as suitable times. They are unhappy with your suggested appropriation.

Undoubtedly you have already considered the $61,000 AirForce contract as definite but it will not be definite until we ask for and get permission to transfer it to next year. This is by no means automatic though we hope our request will be granted.

Sincerely,
Deane

April 7, 1967

Dear Deane:

Thanks very much for the piece you sent me yesterday. I read it with great interest and some comprehension. I think the high proportion of Institute members mentioned is indeed striking, and I am glad to have the material for sales purposes.

Why don't you remedy Professor Dieudonné's non-membership?

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

April 6, 1967

Dr. Carl Kaysen

Dear Carl:

I enclose a semi-popular article on mathematics since the war which appeared in the American Mathematical Monthly three years ago. A check has been placed opposite names of people who have been here. The article has obvious omissions -- for example, Selberg and Paul Cohen -- and many dozens more of our members have made excellent contributions. Naturally, there have been outstanding developments during the period since the article was written.

It occurred to me that this might be of some slight interest to you as an indication of the recent development of mathematics and the part played in it by the Institute. Professor Dieudonné is a distinguished mathematician, who, to my regret, has never been a visitor here.

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

Enc.

March 16, 1967

Prof. Dr. L. Iliev, President
National Committee for Mathematics
Bulgarian Academy of Sciences
1 Boul. Anton Ivanov
Sofia 26, Bulgaria

Dear Dr. Iliev:

Thank you for your invitation of March 7 which I have passed along to the Faculty of Mathematics. If any of them can come to the Second Congress of the Bulgarian Mathematicians, I am sure they will be in touch with you directly.

Sincerely yours,

Carl Kaysen
Director

bcc: Professor Montgomery

March 16, 1967

Dear Deane:

Here is a communication from the Bulgarian Academy of Sciences. I don't know whether anybody will be interested in this.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

January 31, 1967

Dear Deane:

Thanks for your note of 27 January. Mike tells me that in fact an installation will be in place in the new library building this summer, and you will be spared the inconvenience of having a boiler going under your feet.

Cordially,

Carl Kaysen

Professor Deane Montgomery
Institute for Advanced Study

cc: Mr. Morgan

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

January 27, 1967

Dr. Carl Kaysen

Dear Carl:

I am enclosing a copy of a note explaining a problem about which I have spoken off and on beginning in April, 1965. Last July it was mentioned to me that an electrically fired boiler had been ordered for the Library which would be adequate to supply whatever heat is needed in the summer. It was said that this would probably be installed by November, or, at any rate, in plenty of time for the next spring and summer. It may already have arrived, but, if not, I hope that it will come in time to be in use this spring. The original plans on this point were a mistake. However, the matter can easily be corrected.

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

Enc.

April 21, 1966

Mr. Minot C. Morgan
Fuld Hall

Dear Mike:

I thought it might be helpful to write down the point I discussed this morning and which I have also discussed in the past.

It would be very desirable to avoid operating a boiler in Fuld Hall during the summer because the resultant noise and heat makes for some discomfort in my office and the other offices which are directly above the boiler room. The heat from the boiler is used to control the temperature in the library, and to warm it when the air conditioning has made it too cool. It seems to me that in the summer the amount of heat needed for this, if any, is quite small and that it would be possible to supply this amount of heat with some kind of a gas or electric device in the basement of the library. Obviously there would be an initial expense, but in the long run such a system might be more economical to operate and it would keep several of us more comfortable in the summer months.

Sincerely yours,

DM:MMM

Deane Montgomery

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

March 16, 1966

Professor Carl Kaysen
20 Avon Hill Street
Cambridge, Massachusetts 02140

Dear Kaysen:

I shall look forward to seeing you in my office at 2:30 p.m. on March twenty-fifth. I enclose an obituary of Professor Veblen because it contains a few scraps of information about the development of the Institute, which might possibly be of some slight interest to you.

Sincerely yours,

Deane Montgomery

DM:MMM

Enc.

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY 08540

SCHOOL OF MATHEMATICS

February 12, 1965

Dear Robert:

I believe it would be desirable for letters of appointment to go out rather quickly. Questions of housing and office space are separate. These questions can be and usually are settled later in any case.

Sincerely yours,

DM:MMM

Deane Montgomery

Dac Montgomery

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

April 8, 1964

Dear Robert:

Apparently some consideration is being given to using the present main reading room of the Library as a second tea room. To use the room in this way would not be very sensible for a number of reasons. There is no need for a second tea room. Moreover, converting this currently very useful room to a second tea room would, indirectly, deprive us of office space, and office space is urgently needed.

At present most of the wall space of the room is used for mathematics books, and the floor space is used as a reading room. It would be best to continue using the room in this way. There are a few current periodicals of broad interest in the room, and these could continue there or be increased if it is felt desirable, so that the room could simultaneously be of some use to everyone as it is now. If the room is to have some general use other than at present, then I believe this should be discussed by the Faculty, and that this should be true of any major changes in the general use of the grounds or buildings.

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

cc: Dr. Judith Sachs
Prof. Atle Selberg

Fac Montgomery

The enclosed obituary will appear in the BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY.

Oswald Veblen

by Deane Montgomery

Professor Oswald Veblen died at his summer home in Brooklin, Maine, on August 10, 1960. He was survived by his wife, Elizabeth Richardson Veblen, and by four sisters and one brother. He was born in Decorah, Iowa, on June 24, 1880, and was the oldest of a family of eight children, four girls and four boys.

He was one of the most influential mathematicians of this century, partly through his contributions to the subject and partly through the effect of his remarkable judgment and force of character. He had an unfailing belief in high standards and was prepared to stand for them irrespective of his own comfort or convenience. He contributed in a decisive way not only to excellence in mathematics but to excellence in American scholarship in general. He was one of those mainly responsible for carrying Princeton forward from a slender start to a major mathematics center. There can be but very few who play such a large part in the development of American and world mathematics.

Shortly after his death the faculty and trustees of the Institute for Advanced Study joined in writing of him as follows:

> "We are acutely conscious of the loss to the Institute and to the world of learning of a major figure.
>
> "Oswald Veblen was of great influence in developing the Institute as a center for postdoctoral research, but this was only a part of a career extending back for half a century to the time when scholarly work was in its infancy in Princeton and the United States. His effect on mathematics, transcending the Princeton community and the country as a whole, will be felt for decades to come; but his interest and influence went far beyond his own field and he was a powerful force in establishing the highest academic standards in general.
>
> "He loved simplicity and disliked sham. He placed the standing of the Institute ahead of his personal convenience. He possessed the art of friendship, and his assistance was decisive for the careers of dozens of men. His helping hand is remembered with gratitude in many academic communities all over the world.

> "We are grateful for his great strength and courage, for his unusual wisdom, for his unflinching integrity and honesty, for his uncompromising ideals, and, not least, for his generous friendship."

In 1955 on the occasion of the twenty-fifth anniversary of the founding of the Institute Mr. Herbert Maass, then Chairman of the Board of Trustees, stated, "... we were the fortunate beneficiaries of the services of Professor Oswald Veblen, formerly of Princeton University, who aided greatly in the establishment of the School of Mathematics and who ever since has been a tower of strength in maintaining the high standards originally set for the Institute."

Although Veblen had far more friends and admirers than most men, it was of course inevitable that there was occasional friction with those who either did not understand or who found it expedient not to follow his shining academic ideals. Anyone familiar with the academic scene knows that the pressures against quality are formidable, and that the battle for excellence has no end. Excuses for weakness and pettiness in academic matters are so familiar as to be trite and are usually presented under the pretense of one or another noble motive, but for Veblen there did not exist a valid excuse for a choice of anything but the best.

Veblen was a grandson of Thomas Anderson Veblen and Kari Thorsteinsdatter Bunde Veblen who moved in 1847 from Valdres, Norway, to Ozaukee County, Wisconsin, on the western shore of Lake Michigan, just north of Milwaukee. (Wisconsin became a state in 1848.) They lived here and in the nearby counties of Sheboygan and Manitowoc until they moved in 1865 to a farm in Rice County, Minnesota, about fifty miles south of Minneapolis. They had twelve children, and the family lived under the rugged pioneer conditions of the Northwest at that time. One of their children was Thorstein Bunde Veblen (1857-1929) who became a distinguished economist and social theorist. Another of their children was Andrew Anderson Veblen (1848-1932). In 1877 Andrew Veblen

married Kirsti Hougen (1851-1908) and to them Oswald Veblen was born in 1880. Kirsti Hougen emigrated in 1856 from Hallingdal, Norway, to a farm in Western Goodhue County, Minnesota. The Hougen and Veblen families lived on farms not far apart in the vicinity of Nerstrand, Minnesota. In this area Norwegian settlers were in an overwhelming majority and even now Norwegian is often spoken when neighbors meet.

At the time Oswald Veblen was born, his father was teaching mathematics and English at Luther College in Decorah, Iowa. The father did graduate work at Johns Hopkins from 1881 to 1883 and in 1883 moved with his family to Iowa City, Iowa, and began teaching mathematics and physics at the State University of Iowa. It was in Iowa City that Oswald Veblen received his grade school and high school education in the public schools and where he was graduated B. A. in 1898 at the University. As a student he won a prize in mathematics and another in sharpshooting. During these early years he took a trip by boat down the Iowa and Mississippi rivers and he often spoke of this trip with pleasure. The year following his graduation he stayed on at the University as an assistant in physics and conducted some of his father's courses when his father was ill with typhoid fever. Immediately after this year he went to Harvard where he was graduated with a second B. A. in 1900.

He went to Chicago in 1900 to begin his graduate work and at this time Thorstein Veblen was an assistant professor of political science there. At Chicago he took courses in mathematics from Bolza, Maschke, and E. H. Moore, and he also took a course in philosophy from John Dewey. He received his Ph. D. in 1903 with a thesis on the foundations of geometry written under E. H. Moore. He continued at Chicago for two more years as an associate in mathematics. The University of Chicago had opened in 1890 and quickly assembled a strong faculty in mathematics. It was at about this time that it first became possible to obtain good graduate training in mathematics in the United States; before this period it had been

necessary for Americans to travel to Europe for advanced work in mathematics. Some of the other mathematics students at Chicago at about this time were Birkhoff, Lennes, and R. L. Moore. Birkhoff took his Ph. D. at Chicago in 1907. R. L. Moore received his Ph. D. under Veblen in 1905. Birkhoff and Moore later taught for a time at Princeton when Veblen was there.

Veblen was brought to Princeton University in 1905 by the then President of the University Woodrow Wilson and by Dean Henry Burchard Fine as one of the new "preceptor guys"; these were being added to increase the academic strength of Princeton. He was promoted to full professor in 1910 and Henry Burchard Fine Professor in 1926. In 1932 he was appointed a professor at the Institute for Advanced Study which had just been founded and located in Princeton. He kept his professorship at the Institute until he was made emeritus in 1950. After that he continued his constructive interest in mathematics and the Institute through contact with his colleagues and through his position as a trustee of the Institute.

His contributions to Princeton University and to the Institute like those to the academic scene in general were enormous. He was one of the main forces in building the University mathematics department. Some of his own students who were added to the University faculty were J. W. Alexander, A. Church, and T. Y. Thomas. He played an important part in the appointment of Lefschetz and other distinguished men, and in the building of Fine Hall, the mathematics building at the University donated by the Jones family. At the Institute he was largely responsible for the selection of its early mathematics faculty which, in addition to himself, contained Alexander, Einstein, Morse, von Neumann, and Weyl. Moreover, he was largely responsible for determining the Institute policy of concentrating on postdoctoral work, his ideas on the subject having taken form by his experiences at the University. He was

a trustee of the Institute from its early days until his death (for his last few years he was an honorary trustee). He played a large part in arranging the purchase by the Institute of the tract of land it now occupies.

It was at his suggestion that the National Research Council started granting postdoctoral fellowships in mathematics in 1924. This suggestion has had a great influence on the careers of scores of young men. The committee of selection for many years consisted of Birkhoff, Bliss, and Veblen. Funds for fellowships of this kind now come from the National Science Foundation. This suggestion of his was typical of his constant helpfulness and encouragement to others, especially to young men and to the talented wherever found. His work on the committee for selecting fellows was done conscientiously and thoroughly. His file contains a carbon copy of a three-page letter written to the other committee members shortly before one of their annual meetings. His letter mentions that he had spent three full days studying the applications, that he had written to many colleagues in this country and abroad for their advice on many of the applicants, and that he had consulted about the matter with several people in Princeton. He went on to make a preliminary ordering with a few comments on his estimate of each of the candidates. It is clear that the decisions of the committee were not made in a casual manner. His ability to detect talent was well known, and it was evidently based in part on a thorough search.

In the years immediately after Hitler's rise to power Veblen was a central figure in helping to relocate many distinguished foreign mathematicians in the United States. His help was mainly on a personal basis, but partly as a member of committees. His files contain a large correspondence on this subject with men from all parts of this country and many countries abroad. There are

numerous letters to and from Harold Bohr and G. H. Hardy, both of whom were active in this direction. Years later he occasionally received words of thanks from men he had forgotten he had helped. Subsequently he was influential in founding Mathematical Reviews and devoted a great deal of energy in this direction.

Veblen was a great admirer of England and continental Europe. At the same time he was an equally great admirer of all that was good in the American tradition and was often quick to comment on American achievements.

In writing obituaries of Dean Fine of Princeton and G. D. Birkhoff of Harvard he revealed something of himself, and many of the things he said of them could well be said of him. His comment on an address by Birkhoff was as follows:

> "Among the unconscious revelations of the address on 'Fifty years of American mathematics,' one of the most vivid is that of the depth and sincerity of Birkhoff's devotion to the cause of mathematics, and particularly of 'American mathematics.' This, along with his devotion to Harvard, was always a primary motive. It may be added that a sort of religious devotion to American mathematics as a 'cause' was characteristic of a good many of his predecessors and contemporaries."

His opening remarks in his obituary of Dean Fine are given below:

> "Dean Fine was one of the group of men who carried American mathematics forward from a state of approximate nullity to one verging on parity with the European nations. It already requires an effort of the imagination to realize the difficulties with which the men of his generation had to contend, the lack of encouragement, the lack of guidance, the lack of knowledge both of the problems and of the contemporary state of science, the overwhelming urge of environment in all other directions than the scientific one. But by comparing the present average state of affairs in this country with what can be seen in the most advanced parts of the world, and extrapolating backwards, we may reconstruct a picture which will help us to appreciate their qualities and achievements."

In 1928-29 Veblen was an exchange professor at Oxford and in 1932 lectured at Göttingen, Berlin, and Hamburg. He and his wife traveled to Europe frequently.

He was president of the American Mathematical Society during 1923-24. At this time the Society was in a financial crisis and Veblen was very effective in helping to meet this crisis and to establish an endowment fund. He was president of the International Congress held at Harvard in 1950. This honor touched him very deeply and he evidently took it to be, as it was, a recognition of the tremendous effort and devotion he had given to mathematics and scholarship. His brief remarks in opening the congress are well worth reading for their wisdom and insight. He received honorary degrees from Oslo, Oxford, Hamburg, Chicago, Princeton, Edinburgh, and Glasgow. He was an honorary member or fellow of learned societies in the United States as well as a number abroad including Denmark, England, France, Ireland, Italy, Peru, Poland, and Scotland.

Veblen married Elizabeth Richardson of Dewsbury, Yorkshire, England, in 1908. They met when she was visiting her brother, Owen Richardson, who was teaching physics at Princeton at that time. Later Owen Richardson was a professor at King's College, London University, and was awarded a Nobel Prize. Veblen was related by marriage to another Nobel Prize winner, Clinton Joseph Davisson, the husband of Mrs. Veblen's sister, Charlotte Richardson.

During the first world war Veblen was a captain and later a major in charge of range firing and ballistic work at a Proving Ground. In the second world war he helped build up a research team at Aberdeen for work on ballistics.

In the last few years of his life he was partially blind although he retained some peripheral vision. He grew interested in developing devices to help himself and others with a similar affliction to read. One

of these devices was put into production by the American Foundation for the Blind. Toward the end of his life he suffered from a strained heart and this finally caused his death. Although these illnesses were discouraging, he remained cheerful and maintained his usual interests and activities on only a slightly reduced scale. His mind and judgment continued to be unusually keen and penetrating, and his conversation was as rewarding as ever.

One of his hobbies was photography and another was a layman's interest in archaeology. Through all of his life he was fond of woods and the outdoors. He and Mrs. Veblen gave a tract of 80 acres to Mercer County, New Jersey, which is called the Herrontown Arboretum and which is intended to provide for walks in a natural wooded section of New Jersey.

Veblen was unusually helpful to other mathematicians and throughout his life he took a special interest in young mathematicians. He and his wife were generous with hospitality. Most of the mathematicians and a great many other academic people visiting Princeton during several decades were guests either in their Battle Road home or, in later years, in their home on Herrontown Road.

In spite of his great efforts on behalf of mathematics and scholarship, his own direct contributions were solid and very substantial. One of his earliest papers [2] was on the Heine-Borel theorem. In it he observed that this theorem could be used instead of the pinching process in the proof of some of the theorems on limits and continuity in analysis. This observation was exploited in the book INTRODUCTION TO INFINITESIMAL ANALYSIS, FUNCTIONS OF ONE REAL VARIABLE [15] which he wrote with N. J. Lennes, a book which was quite influential in introducing students to rigorous proofs of the theorems of advanced calculus and elementary real function theory. This subject in this country was a rather new one at the time.

His thesis [5] on the foundations of geometry was the beginning of his first major interest in mathematics. More than that it remained influential in most of his interests throughout his life for almost all of his work was connected with geometry, and in all of it he was greatly concerned with precision and completeness. He had the ability to see the foundations in a clear and relevant way without wandering into ramifications beyond the requirements of mathematics. His thesis contains a footnote thanking his director E. H. Moore and also thanking N. J. Lennes and R. L. Moore for critically reading parts of the manuscript. His axioms were stated in terms of points and order. There were 12 axioms which were proved to be independent and categorical. His thesis led on to a number of papers over the next several years on such related subjects as finite projective geometries and axioms for projective geometry. Perhaps this direction of his interest may be said to have culminated in the two volumes of PROJECTIVE GEOMETRY of which volume I was written with J. W. Young. Formally Young is also a joint author of volume II, but he, in reality, was unable to participate in the writing because of his other duties. These two books were widely read.

Veblen was a firm believer in the abstract approach to mathematics. In his work on geometry he attempted (and in the preface to the second volume of PROJECTIVE GEOMETRY enjoined others) to "not merely prove every theorem rigorously but to prove it in such a fashion as to show in which spaces it is true and to which geometries it belongs". The two volumes on PROJECTIVE GEOMETRY carry out this program in admirable fashion. "All the theorems of volume I are valid, not alone in the ordinary real and the ordinary complex projective spaces, but also in the ordinary rational space and in the finite spaces." Moreover the list of assumptions under which each theorem is true is stated, and from this the relation between projective geometry and algebraic structure may be discerned.

Along with his interest in the foundations of geometry he developed an interest in algebraic topology, or analysis situs as it was then called and by 1912 was writing papers on this subject. At the time it was not widely pursued and it was interesting to hear Veblen's comments on the feelings of the men striking out in this comparatively new field. Veblen's work was of much greater influence in encouraging others in this direction than is generally realized today. His papers and his Colloquium lectures on the subject were influential over many years. These Colloquium lectures were delivered at Cambridge in 1916 and were published in 1922. For many years they remained the best introduction to the subject.

Gradually he became more interested in differential geometry. From 1922 onward most of his papers were in this area and in its connections with relativity. In addition to his papers he wrote three short books on this subject, one of them in collaboration with J. H. C. Whitehead. Throughout all of his work he insisted on clarity. It was this trait which helped put algebraic topology on a firm foundation, for although the subject had already received brilliant contributions from Poincaré and others, some of its tools and concepts remained somewhat vague. His work on axioms for differentiable manifolds and differential geometry contributed directly to the field and helped to create the setting for the lively developments to come. In fact some of the concepts to come can be found in these books. A great deal of his effort for the last several years of his scientific career was spent on spinors. Much of this has never appeared, partly perhaps because of his insistence on clarity and precision.

Veblen remained rather youthful in his point of view to the end, and he was often amused by the comments of younger but aging men to the effect that the great period for this or that was gone forever. He did not believe it. Possibly part of his youthful attitude came from his

interest in youth; he was firmly convinced that a great part of the mathematical lifeblood of the Institute was in the flow of young mathematicians through it. He felt too that the main justification for the Institute was in whatever impact it had on the academic scene, especially the American academic scene.

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OSWALD VEBLEN

BY

DEANE MONTGOMERY

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OSWALD VEBLEN

BY DEANE MONTGOMERY

Professor Oswald Veblen died at his summer home in Brooklin, Maine, on August 10, 1960. He was survived by his wife, Elizabeth Richardson Veblen, and by four sisters and one brother. He was born in Decorah, Iowa, on June 24, 1880, and was the oldest of a family of eight children, four girls and four boys.

He was one of the most influential mathematicians of this century, partly through his contributions to the subject and partly through the effect of his remarkable judgment and force of character. He had an unfailing belief in high standards and was prepared to stand for them irrespective of his own comfort or convenience. He contributed in a decisive way not only to excellence in mathematics but to excellence in American scholarship in general. He was one of those mainly responsible for carrying Princeton forward from a slender start to a major mathematics center. There can be but very few who play such a large part in the development of American and world mathematics.

Shortly after his death the faculty and trustees of the Institute for Advanced Study joined in writing of him as follows:

> "We are acutely conscious of the loss to the Institute and to the world of learning of a major figure.
>
> "Oswald Veblen was of great influence in developing the Institute as a center for postdoctoral research, but this was only a part of a career extending back for half a century to the time when scholarly work was in its infancy in Princeton and the United States. His effect on mathematics, transcending the Princeton community and the country as a whole, will be felt for decades to come; but his interest and influence went far beyond his own field and he was a powerful force in establishing the highest academic standards in general.
>
> "He loved simplicity and disliked sham. He placed the standing of the Institute ahead of his personal convenience. He possessed the art of friendship, and his assistance was decisive for the careers of dozens of men. His helping hand is remembered with gratitude in many academic communities all over the world.
>
> "We are grateful for his great strength and courage, for his unusual wisdom, for his unflinching integrity and honesty, for his uncompromising ideals, and, not least, for his generous friendship."

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In 1955 on the occasion of the twenty-fifth anniversary of the founding of the Institute, Mr. Herbert Maass, then Chairman of the Board of Trustees, stated, " . . . we were the fortunate beneficiaries of the services of Professor Oswald Veblen, formerly of Princeton University, who aided greatly in the establishment of the School of Mathematics and who ever since has been a tower of strength in maintaining the high standards originally set for the Institute."

Although Veblen had far more friends and admirers than most men, it was of course inevitable that there was occasional friction with those who either did not understand or who found it expedient not to follow his shining academic ideals. Anyone familiar with the academic scene knows that the pressures against quality are formidable, and that the battle for excellence has no end. Excuses for weakness and pettiness in academic matters are so familiar as to be trite and are usually presented under the pretense of one or another noble motive, but for Veblen there did not exist a valid excuse for a choice of anything but the best.

Veblen was a grandson of Thomas Anderson Veblen and Kari Thorsteinsdatter Bunde Veblen who moved in 1847 from Valdres, Norway, to Ozaukee County, Wisconsin, on the western shore of Lake Michigan, just north of Milwaukee. (Wisconsin became a state in 1848.) They lived here and in the nearby counties of Sheboygan and Manitowoc until they moved in 1865 to a farm in Rice County, Minnesota, about fifty miles south of Minneapolis. They had twelve children, and the family lived under the rugged pioneer conditions of the Northwest at that time. One of their children was Thorstein Bunde Veblen (1857–1929) who became a distinguished economist and social theorist. Another of their children was Andrew Anderson Veblen (1848–1932). In 1877 Andrew Veblen married Kirsti Hougen (1851–1908) and to them Oswald Veblen was born in 1880. Kirsti Hougen emigrated in 1856 from Hallingdal, Norway, to a farm in Western Goodhue County, Minnesota. The Hougen and Veblen families lived on farms not far apart in the vicinity of Nerstrand, Minnesota. In this area Norwegian settlers were in an overwhelming majority and even now Norwegian is often spoken when neighbors meet.

At the time Oswald Veblen was born, his father was teaching mathematics and English at Luther College in Decorah, Iowa. The father did graduate work at Johns Hopkins from 1881 to 1883 and in 1883 moved with his family to Iowa City, Iowa, and began teaching mathematics and physics at the State University of Iowa. It was in Iowa City that Oswald Veblen received his grade school and high school education in the public schools and where he graduated with a

B.A. degree in 1898 at the University. As a student he won a prize in mathematics and another in sharpshooting. During these early years he took a trip by boat down the Iowa and Mississippi rivers and he often spoke of this trip with pleasure. The year following his graduation he stayed on at the University as an assistant in physics and conducted some of his father's courses when his father was ill with typhoid fever. Immediately after this year he went to Harvard where he graduated with a second B.A. degree in 1900.

He went to Chicago in 1900 to begin his graduate work and at this time Thorstein Veblen was an assistant professor of political science there. At Chicago he took courses in mathematics from Bolza, Maschke, and E. H. Moore, and he also took a course in philosophy from John Dewey. He received his Ph.D. in 1903 with a thesis on the foundations of geometry written under E. H. Moore. He continued at Chicago for two more years as an associate in mathematics. The University of Chicago had opened in 1890 and quickly assembled a strong faculty in mathematics. It was about this time that it first became possible to obtain good graduate training in mathematics in the United States; before this period it had been necessary for Americans to travel to Europe for advanced work in mathematics. Some of the other mathematics students at Chicago at about this time were Birkhoff, Lennes, and R. L. Moore. Birkhoff took his Ph.D. at Chicago in 1907. R. L. Moore received his Ph.D. under Veblen in 1905. Birkhoff and Moore later taught for a time at Princeton when Veblen was there.

Veblen was brought to Princeton University in 1905 by the then President of the University, Woodrow Wilson and by Dean Henry Burchard Fine, as one of the new "preceptor guys"; these were being added to increase the academic strength of Princeton. He was promoted to full professor in 1910 and Henry Burchard Fine Professor in 1926. In 1932 he was appointed a professor at the Institute for Advanced Study which had just been founded and located in Princeton. He kept his professorship at the Institute until he was made emeritus in 1950. After that he continued his constructive interest in mathematics and the Institute through contact with his colleagues and through his position as a trustee of the Institute.

His contributions to Princeton University and to the Institute like those to the academic scene in general were enormous. He was one of the main forces in building the University mathematics department. Some of his own students who were added to the University faculty were J. W. Alexander, A. Church, and T. Y. Thomas. He played an important part in the appointment of Lefschetz and other

distinguished men, and in the building of Fine Hall, the mathematics building at the University donated by the Jones family. At the Institute he was largely responsible for the selection of its early mathematics faculty, which, in addition to himself, contained Alexander, Einstein, Morse, von Neumann, and Weyl. Moreover, he was largely responsible for determining the Institute's policy of concentrating on postdoctoral work, his ideas on the subject having taken form by his experiences at the University. He was a trustee of the Institute from its early days until his death (for his last few years he was an honorary trustee). He played a large part in arranging the purchase by the Institute of the tract of land it now occupies.

It was at his suggestion that the National Research Council started granting postdoctoral fellowships in mathematics in 1924. This suggestion has had a great influence on the careers of scores of young men. The committee of selection for many years consisted of Birkhoff, Bliss, and Veblen. Funds for fellowships of this kind now come from the National Science Foundation. This suggestion of his was typical of his constant helpfulness and encouragement to others, especially to young men and to the talented wherever found. His work on the committee for selecting fellows was done conscientiously and thoroughly. His file contains a carbon copy of a three-page letter written to the other committee members shortly before one of their annual meetings. His letter mentions that he had spent three full days studying the applications, that he had written to many colleagues in this country and abroad for their advice on many of the applicants, and that he had consulted about the matter with several people in Princeton. He went on to make a preliminary ordering with a few comments on his estimate of each of the candidates. It is clear that the decisions of the committee were not made in a casual manner. His ability to detect talent was well known, and it was evidently based in part on a thorough search.

In the years immediately after Hitler's rise to power Veblen was a central figure in helping to relocate many distinguished foreign mathematicians in the United States. His help was mainly on a personal basis, but partly as a member of committees. His files contain a large correspondence on this subject with men from all parts of this country and many countries abroad. There are numerous letters to and from Harold Bohr and G. H. Hardy, both of whom were active in this direction. Years later he occasionally received words of thanks from men he had forgotten he had helped. Subsequently he was influential in founding Mathematical Reviews and devoted a great deal of energy in this direction.

Veblen was a great admirer of England and continental Europe. At the same time he was an equally great admirer of all that was good in the American tradition and was often quick to comment on American achievements.

In writing obituaries of Dean Fine of Princeton and G. D. Birkhoff of Harvard he revealed something of himself, and many of the things he said of them could well be said of him. His comment on an address by Birkhoff was as follows:

> "Among the unconscious revelations of the address on 'Fifty years of American mathematics,' one of the most vivid is that of the depth and sincerity of Birkhoff's devotion to the cause of mathematics, and particularly of 'American mathematics.' This, along with his devotion to Harvard, was always a primary motive. It may be added that a sort of religious devotion to American mathematics as a 'cause' was characteristic of a good many of his predecessors and contemporaries."

His opening remarks in his obituary of Dean Fine are given below:

> "Dean Fine was one of the group of men who carried American mathematics forward from a state of approximate nullity to one verging on parity with the European nations. It already requires an effort of the imagination to realize the difficulties with which the men of his generation had to contend, the lack of encouragement, the lack of guidance, the lack of knowledge both of the problems and of the contemporary state of science, the overwhelming urge of environment in all other directions than the scientific one. But by comparing the present average state of affairs in this country with what can be seen in the most advanced parts of the world, and extrapolating backwards, we may reconstruct a picture which will help us to appreciate their qualities and achievements."

In 1928–1929 Veblen was an exchange professor at Oxford and in 1932 lectured at Göttingen, Berlin, and Hamburg. He and his wife traveled to Europe frequently.

He was president of the American Mathematical Society during 1923–1924. At this time the Society was in a financial crisis and Veblen was very effective in helping to meet this crisis and to establish an endowment fund. He was president of the International Congress held at Harvard in 1950. This honor touched him very deeply and he evidently took it to be, as it was, a recognition of the tremendous effort and devotion he had given to mathematics and scholarship. His brief

remarks in opening the congress are well worth reading for their wisdom and insight. He received honorary degrees from Oslo, Oxford, Hamburg, Chicago, Princeton, Edinburgh, and Glasgow. He was an honorary member or fellow of learned societies in the United States as well as a number abroad including Denmark, England, France, Ireland, Italy, Peru, Poland, and Scotland.

Veblen married Elizabeth Richardson of Dewsbury, Yorkshire, England, in 1908. They met when she was visiting her brother, Owen Richardson, who was teaching physics at Princeton at that time. Later Owen Richardson was a professor at King's College, London University, and was awarded a Nobel Prize. Veblen was related by marriage to another Nobel Prize winner, Clinton Joseph Davisson, the husband of Mrs. Veblen's sister, Charlotte Richardson.

During the First World War Veblen was a captain and later a major in charge of range firing and ballistic work at a Proving Ground. In the Second World War he helped build up a research team at Aberdeen for work on ballistics.

In the last few years of his life he was partially blind although he retained some peripheral vision. He grew interested in developing devices to help himself and others with a similar affliction to read. One of these devices was put into production by the American Foundation for the Blind. Toward the end of his life he suffered from a strained heart and this finally caused his death. Although these illnesses were discouraging, he remained cheerful and maintained his usual interests and activities on only a slightly reduced scale. His mind and judgment continued to be unusually keen and penetrating, and his conversation was as rewarding as ever.

One of his hobbies was photography and another was a layman's interest in archaeology. Through all of his life he was fond of woods and the outdoors. He and Mrs. Veblen gave a tract of 80 acres to Mercer County, New Jersey, which is called the Herrontown Arboretum and which is intended to provide for walks in a natural wooded section of New Jersey.

Veblen was unusually helpful to other mathematicians, and throughout his life he took a special interest in young mathematicians. He and his wife were generous with hospitality. Most of the mathematicians and a great many other academic people visiting Princeton during several decades were guests either in their Battle Road home or, in later years, in their home on Herrontown Road.

In spite of his great efforts on behalf of mathematics and scholarship, his own direct contributions were solid and very substantial. One of his earliest papers [2] was on the Heine-Borel Theorem. In it

he observed that this theorem could be used instead of the pinching process in the proof of some of the theorems on limits and continuity in analysis. This observation was exploited in the book *Introduction to infinitesimal analysis, functions of one real variable* [15] which he wrote with N. J. Lennes, a book which was quite influential in introducing students to rigorous proofs of the theorems of advanced calculus and elementary real function theory. This subject in this country was a rather new one at the time.

His thesis [5] on the foundations of geometry was the beginning of his first major interest in mathematics. More than that it remained influential in most of his interests throughout his life for almost all of his work was connected with geometry, and in all of it he was greatly concerned with precision and completeness. He had the ability to see the foundations in a clear and relevant way without wandering into ramifications beyond the requirements of mathematics. His thesis contains a footnote thanking his director E. H. Moore and also thanking N. J. Lennes and R. L. Moore for critically reading parts of the manuscript. His axioms were stated in terms of points and order. There were 12 axioms which were proved to be independent and categorical. His thesis led on to a number of papers over the next several years on such related subjects as finite projective geometries and axioms for projective geometry. Perhaps this direction of his interest may be said to have culminated in the two volumes of *Projective geometry* of which Volume I was written with J. W. Young. Formally, Young is also a joint author of Volume II, but he, in reality, was unable to participate in the writing because of his other duties. These two books were widely read.

Veblen was a firm believer in the abstract approach to mathematics. In his work on geometry he attempted (and in the preface to the second volume of *Projective geometry* enjoined others) to "not merely prove every theorem rigorously but to prove it in such a fashion as to show in which spaces it is true and to which geometries it belongs." The two volumes on *Projective geometry* carry out this program in admirable fashion. "All the theorems of Volume I are valid, not alone in the ordinary real and the ordinary complex projective spaces, but also in the ordinary rational space and in the finite spaces." Moreover the list of assumptions under which each theorem is true is stated, and from this the relation between projective geometry and algebraic structure may be discerned.

Along with his interest in the foundations of geometry he developed an interest in algebraic topology, or analysis situs as it was then called and by 1912 was writing papers on this subject. At the time it was

not widely pursued and it was interesting to hear Veblen's comments on the feelings of the men striking out in this comparatively new field. Veblen's work was of much greater influence in encouraging others in this direction than is generally realized today. His papers and his Colloquium lectures on the subject were influential over many years. These Colloquium lectures were delivered at Cambridge in 1916 and were published in 1922. For many years they remained the best introduction to the subject.

Gradually he became more interested in differential geometry. From 1922 onward most of his papers were in this area and in its connections with relativity. In addition to his papers he wrote three short books on this subject, one of them in collaboration with J. H. C. Whitehead. Throughout all of his work he insisted on clarity. It was this trait which helped put algebraic topology on a firm foundation, for although the subject had already received brilliant contributions from Poincaré and others, some of its tools and concepts remained somewhat vague. His work on axioms for differentiable manifolds and differential geometry contributed directly to the field and helped to create the setting for the lively developments to come. In fact some of the concepts to come can be found in these books. A great deal of his effort for the last several years of his scientific career was spent on spinors. Much of this has never appeared, partly perhaps because of his insistence on clarity and precision.

Veblen remained rather youthful in his point of view to the end, and he was often amused by the comments of younger but aging men to the effect that the great period for this or that was gone forever. He did not believe it. Possibly part of his youthful attitude came from his interest in youth; he was firmly convinced that a great part of the mathematical lifeblood of the Institute was in the flow of young mathematicians through it. He felt too that the main justification for the Institute was in whatever impact it had on the academic scene, especially the American academic scene.

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55. *The foundations of differential geometry* (with J. H. C. Whitehead), (Cambridge Tracts in Math. and Math. Phys., no. 29), Cambridge, 1932, ix+96 pp. Translation into Japanese by Kentaro Yano, Tokyo, 1950, 104.

56. *Projektive Relativitätstheorie* (Ergebnisse der Mathematik und ihrer Grenzgebiete, vol. 2, no. 1), Berlin, 1933, v+73 pp.

57. *Geometry of two-component spinors*, Proc. Nat. Acad. Sci. U.S.A. **19** (1933), 462–474.

58. *Geometry of four-component spinors*, Proc. Nat. Acad. Sci. U.S.A. **19** (1933), 503–517.

59. *Spinors in projective relativity*, Proc. Nat. Acad. Sci. U.S.A. 19 (1933), 979–989.

60. *Projective differentiation of spinors* (with A. H. Taub), Proc. Nat. Acad. Sci. U.S.A. **20** (1934), 85–92.

61. *The Dirac equation in projective relativity* (with A. H. Taub and J. von Neumann), Proc. Nat. Acad. Sci. U.S.A. **20** (1934), 383–388.

62. *Certain aspects of modern geometry—A course of three lectures . . .* I. *The modern approach to elementary geometry*; II. *Analysis situs*; III. *Modern differential geometry*, Rice Institute pamphlets **21** (1934), 207–255.

63. *Spinors*, J. Washington Acad. Sci. **24** (1934), 281–290; Science **80** (1934) 415–419.

64. *Formalism for conformal geometry*, Proc. Nat. Acad. Sci. U.S.A. **21** (1935), 168–173.

65. *A conformal wave equation*, Proc. Nat. Acad. Sci. U.S.A. **21** (1935), 484–487.

66. *Geometry of complex domains* (with J. W. Givens), mimeographed lectures, Princeton, N. J., 1936, iii+227 pp.

67. *Spinors and projective geometry*, International Congress of Mathematicians, Oslo, Vol. 1, 1937, pp. 111–127.

68. *George David Birkhoff* (1884–1944), American Philosophical Society Year Book, 1946, 1947, 279–285; also in Birkhoff, G. D., *Collected mathematical papers*, Vol. 1, New York, 1950, pp. xv–xxi.

69. *Opening Address*, Proceedings of the International Congress of Mathematicians, Cambridge, Mass., 1950, Vol. I, 1952, pp. 124–125.

70. *Nels Johann Lennes*, (with Deane Montgomery), Bull. Amer. Math. Soc., **60** (1954), 264–265.

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INSTITUTE FOR ADVANCED STUDY

February 16, 1962

To: The Faculty

From: A. Beurling, A. Borel, D. Montgomery, M. Morse, A. Selberg, A. Weil

As far as any one of us can remember, we have been guided primarily by the rule of always making the best choices we knew how to make from among our fellow-mathematicians. None of us has ever been aware of any agreement or tradition that could validly interfere with this cardinal principle.

Nothing could be more fatal to us than any visible departure from it; it is largely because we have followed it consistently, and because this has been widely understood and acknowledged, that the Institute has achieved its unique position in the mathematical world.

On the present occasion, we have been gratified to find that this policy has led us to give recognition to the increasing stature of the American mathematical school, which the Institute has in no small way helped to develop.

We do not wish to dictate policy to other groups at the Institute. At the same time, we greatly fear that any attempt to interfere with this principle of ours, on grounds of expediency and appeasement, would have the most serious consequences for us and for the Institute as a whole.

Professors Alföldi
Cherniss
Dyson
Gödel
Kantorowicz
Lee
Meiss
Meritt
Oppenheimer
Paige
Panofsky
Strömgren
Thompson
Whitney
Yang

June 13, 1962

Professor Deane Montgomery
The Institute for Advanced Study

Dear Deane:

Dr. Oppenheimer has asked me to write you about your pension arrangements. At the meeting of the Board of Trustees held in Princeton on April 6 and 7, the Board voted to increase faculty salaries to $25,000 and increase the minimum guaranteed pension through TIAA-CREF to $15,000.

The standard 5% contribution by the professor matched by a 5% contribution by the Institute for the balance of your tenure as an active professor will not produce the minimum guarantee, and the Institute is therefore adding $117.17 to the monthly payments in your behalf to TIAA-CREF.

You should know also that the Major Medical contract with TIAA has been modified to reduce the deductible after Blue Cross from $200 to $100.

Cordially yours,

Minot C. Morgan, Jr.
General Manager

MCM:lw

Fac - Montgomery

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL

OFFICE OF SCIENTIFIC PERSONNEL

2101 CONSTITUTION AVENUE, N. W., WASHINGTON 25, D. C.

FELLOWSHIP OFFICE

April 10, 1962

Dr. Robert Oppenheimer, Director
Institute for Advanced Study
Princeton, New Jersey

Dear Dr. Oppenheimer:

Thousands of unusually able young scientists in the United States are continuing their training at the graduate and postdoctoral levels through nationally supported fellowships. The National Academy of Sciences-National Research Council is privileged to participate in the evaluation of applications for fellowships supported by the National Science Foundation and other federal agencies as well as a number of private organizations.

The role of the scientists who serve as members of evaluation panels and committees is of increasing importance as the number of applications grows larger each year. During the present academic year more than 250 scholars from institutions in every part of the United States contributed their knowledge and experience in a critical appraisal of applications for fellowships designed to support gifted individuals for advanced scientific training. Each of these scientists has received a letter of appreciation for his services.

The participation of these distinguished scientists is made possible by the cooperation of such institutions as yours in granting permission for the member of your staff named here to assist in the fellowship selection.

Deane Montgomery School of Mathematics

We wish to thank you for your contribution to this national effort and hope we may again invite scholars from your institution to be a part of this operation which is so important for the development of scientific leadership.

Sincerely,

C. J. Lapp

C. J. Lapp
Director of Fellowships and
Deputy Director, Office of
Scientific Personnel

Inst Gen Administrative

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

February 1, 1963

Dear Robert:

In a recent conversation, one of our temporary members remarked that the Institute pays postage on outgoing mail for temporary members in physics but does not do so for temporary members in mathematics or history. A check indicates that his remark is accurate. Although the precise policy on postage is not very important, I believe it is important to have this policy uniformly applied, and that the same is true with other privileges of membership.

Sincerely yours,

Deane

DM:MMM

Deane Montgomery

Just Jew - Administrative procedures

MEMORANDUM February 5, 1963

TO: Miss Horton and Miss Underwood

FROM: Dr. Oppenheimer

Professor Montgomery has called to my attention the fact that Institute practice in providing postage for members' mail is rather widely different for physicists and mathematicians. I have confirmed the fact that the historians' practice is similar to that of mathematicians. I believe that these habits go back to an early date, and that for physicists they were adopted at a later and less austere time.

I would suggest that in general we provide postage for three categories of mail:

1. Scientific correspondence

2. Correspondence concerning professional colleagues and institutional welfare

3. Any correspondence prepared for members by the secretarial staff of the Institute.

Clearly there can be no absolute rules, and these suggestions are for guidance only.

Robert Oppenheimer

cc Professor Montgomery
Mrs. Barnett

Fac Montgomery

NATIONAL ACADEMY OF SCIENCES—NATIONAL RESEARCH COUNCIL

OFFICE OF SCIENTIFIC PERSONNEL

2101 CONSTITUTION AVENUE, N. W., WASHINGTON 25, D. C.

FELLOWSHIP OFFICE

April 10, 1961

Dr. Robert Oppenheimer
Director, The Institute for Advanced Study
Princeton, New Jersey

Dear Dr. Oppenheimer:

Nationally supported fellowship programs for the advanced education and training of unusually able young scientists are now an accepted part of education in the United States. These programs have grown larger continually and have assumed increasing importance in the selection and training of gifted individuals to and beyond the doctorate. As a part of its responsibility to assist the government of the Unites States upon request, the National Academy of Sciences-National Research Council is privileged to evaluate fellowship applications in programs of the National Science Foundation. It also processes and evaluates applications in predoctoral and postdoctoral programs supported by many other organizations.

Each of the many thousands of applications is critically evaluated by an NAS-NRC panel of carefully selected scholars from the scientific community of the United States. Since September 1, 1960, approximately 250 scientists have assisted the Academy-Research Council in this significant operation. Among those who served from your institution was Deane Montgomery, Professor of Mathematics.

We are well aware of the sacrifice made in giving permission for him to be absent for this purpose. We wish to thank you for the contribution to this national effort made by your institution through this distinguished scientist.

Each person who served on one of our committees or panels has received a letter of appreciation for his service. We hope we shall be privileged again to invite scholars from your institution to participate in this work which is so important to the development of scientific leadership.

Sincerely,

C. J. Lapp

C. J. Lapp
Director of Fellowships and
Deputy Director, Office of
Scientific Personnel

Programs Associated with the Fellowship Office of the
National Academy of Sciences-National Research Council

National Science Foundation Graduate Fellowships
National Science Foundation Cooperative Graduate Fellowships
National Science Foundation Summer Fellowships for
Graduate Teaching Assistants
National Science Foundation Postdoctoral Fellowships
(2 programs a year)
National Science Foundation Senior Postdoctoral Fellowships
NATO Postdoctoral Fellowships in Science
O.E.E.C. (Organization for European Economic Cooperation)
Senior Visiting Fellowships
American Chemical Society Petroleum Research Fund
Postdoctoral Fellowships
Senior Postdoctoral Fellowships in Physiological Psychology
supported by the Carnegie Corporation of New York
Leeds and Northrup Foundation Predoctoral Fellowships
NAS-NRC Postdoctoral Research Fellowships supported by the
Air Force Office of Scientific Research

National Aeronautics and Space Administration Postdoctoral
and Senior Postdoctoral Resident Research Associateships

Visiting Scientists Research Associateships,
Postdoctoral and Senior Postdoctoral, supported by
U.S. Army Quartermaster Research and Engineering Command

and:

Postdoctoral Resident Research Associateships, supported by:

Agriculture Research Service
Air Research and Development Command
National Bureau of Standards
Naval Ordnance Laboratory
Naval Research Laboratory
Naval Weapons Laboratory
Navy Electronics Laboratory
U.S. Army Biological Warfare Laboratories

April 1961

Fac Montgomery

10 March 1961

Dear Deane:

Verna Hobson has told me about your stopping by to discuss what we do for retired professors. Through no fault of hers, I find myself not entirely clear as to what you have in mind. I would be very glad to talk with you about it, and tell you what I know. The subject has a tangled history; but what we are doing now, I think, is not too hard to understand.

Robert Oppenheimer

Professor Deane Montgomery
The Institute for Advanced Study

Prof. Montgomery stopped in. Said that for some time he had been meaning to express to you his feeling that it would be good if it could be assumed that whatever was done for a faculty member on his retirement, would be done for all. I said that the trustees had studied retirement provisions, and made special provisions so that there was a uniform floor on pensions. He said he had not been thinking so much of that, as of other things that might be done, or had in the past been done, e.g. for Veblen, and whatever had been done for Woodward.

He brings this up specifically in view of the impending retirement of Panofsky and Morse.

We did not make an appt.; he just asked me to give you this message.

Fac Montgomery

11 October 1960

Dear Deane:

Thank you for your good notes. I have told Caroline Underwood and Ruth Barnett of our plans for Veblen's office, and would think that you might wish to talk with Mrs. Veblen, when it is easy for her and for you, about what she would like done.

Robert Oppenheimer

Professor Deane Montgomery
The Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

Oct 10, 1960

Dear Robert,

I should be very pleased to take over Veblen's office when it becomes available. Thank you again for your thoughtfulness.

Deane

THE INSTITUTE FOR ADVANCED STUDY
PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

10/7 1958

Dear Robert,

Thank you for your very kind note. I would like to think about the matter for a few days before answering.

Deane

6 October 1960

Dear Deane:

For some time now I have wanted to ask you whether you would like to take over Veblen's office. If you do, I am sure that everyone will regard it as most fitting; if not, we may talk of alternatives when we meet with your colleagues.

Robert Oppenheimer

Professor Deane Montgomery
The Institute for Advanced Study

Montgomery

March 19, 1958

Dear Colleagues:

I would be glad to give up my duties as a member of the Annals editorial committee, and I am writing now to propose that my place be filled by A. Weil at any time convenient to him. He is leaving the American Journal and might be willing to serve on the Annals.

Sincerely,

DM:MMM

Deane Montgomery

	Approve	Disapprove
Beurling	—	—
Borel	—	—
Gödel	—	—
Morse	—	—
Selberg	—	—
Whitney	—	—

Please return to Miss Underwood.

cc: R. Oppenheimer ✓

cc Mr. Morgan

20 April 1959

Dear Professor Montgomery:

The Trustees of the Institute, meeting on April 18th, have fixed your salary, and that of your colleagues, at $22,500 a year, starting July 1, 1959.

I am glad to tell you the good news.

Very sincerely,

Robert Oppenheimer

Professor D. Montgomery
The Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

Feb 27, 1950

Dear Robert,

I haven't circulated these generally but it occurred to me that you might like to glance through them.

Deane

Fac Montgomery

THE INSTITUTE FOR ADVANCED STUDY
SCHOOL OF MATHEMATICS
PRINCETON, NEW JERSEY

February 27, 1958

Dr. Leon Cohen
National Science Foundation
Washington 25, D. C.

Dear Leon:

I have just read the Chicago proposals and of course I agree that awarding grants for long periods with a minimum of red tape is desirable. The reservation about recruiting is quite extreme and I see no reason why, in a few exceptional cases, federal funds shouldn't be used to put a good man in a good environment.

The resolutions fail to say a kind word for maintaining a few major centers, an oversight which may not have been intentional. At any rate, so much has been said about spreading funds around uniformly that it is well to observe that to act exclusively in this way is surely against the best interest of mathematics. There is a real need for a few central clearing houses of ideas, and although it is fantastically difficult to create them, it would be a trivial matter to destroy them. Neglect or the active connivance of foundations would do this in a reasonably short time. There is every reason to encourage centers already in existence, for the need for them is great and their replacement doubtful.

Sincerely yours,

DM:MMM

Deane Montgomery

cc: A. T. Waterman

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

February 3, 1958

Dr. Alan T. Waterman
National Science Foundation
Washington 25, D. C.

Dear Waterman:

I have read the Chicago proposal for a new Institute for Advanced Study in mathematics, and since the statement includes a few inaccurate remarks about the Institute here, I am writing to mention them.

According to Professor Veblen, who knew Siegel well, it may be possible to give a variety of guesses as to why he returned to Göttingen, but it is not possible to give a simple and categorical answer. Members of our faculty can and do give courses of lectures on various levels of difficulty and have occasionally given elementary lectures at neighboring institutions, so that opportunities for lecturing are about what any particular man wants them to be.

Since I was here as a member in 1934-1935 and 1941-1942 and am now a member of the faculty, I have at least some basis for comparison and it is clear there is as much contact between faculty and members now as then. Contact between members has always been high and remains so. Members form small informal groups and almost anyone can find several others with closely related interests. This all contributes to create an international clearing house of mathematical ideas which is one of the Institute's main contributions. Such an opportunity for exchange of ideas would certainly be impossible with too few members and on the other hand there is no sign it is handicapped by the present number of members.

Our members do not usually have private offices, but they usually have offices of some kind and in this respect the Institute is more fortunate now than formerly. Private offices are highly desirable but not absolutely essential. In my two visits as a member I had no office whatever and nevertheless considered my visits extremely valuable. There was certainly more crowding in the early days than now.

The Institute here has reached the point where substantial further support is becoming urgent, and, of course, I hope that this support will be found. The opinion is widely held among mathematicians that Princeton now holds the place in mathematics which was held by Göttingen before Hitler, and it is the goal of all of us to maintain and strengthen this position.

Sincerely yours,

Deane Montgomery

DM:MHM

cc: L. W. Cohen

Dec. Montgomery

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

SCHOOL OF MATHEMATICS

March 14, 1958

Dear Robert

Thank you very much for showing me that letter which I was interested to read.

I saw Cohen last week end. He is doubtful that the Foundation will accept the block grant idea and rather gloomy about the prospects of the Foundation doing anything out of the ordinary for the Institute here.

In spite of this I believe there may be at least a small chance and I believe the strongest possibility for success

(over)

would be created by an approach by you, on behalf of mathematics and physics jointly, directly to Waterman or to Waterman and Eichhart (he is director of the division of physical sciences).

Incidentally one or two people in the Foundation have talked to Veblen and he has some ideas you might be interested in hearing.

Deane

P.S. Eichhart, formerly of Gulf oil, seems rather limited but he did tell me he favored giving support in largest amounts to the strongest players.

Montgomery

3 June 1957

Dear Professor Montgomery:

As you know, the Trustees of the Institute for Advanced Study have been considering the adequacy of retirement and pension arrangements, both for the Faculty and for others who are in the employ of the Institute. Their deliberations have led to some changes in policy, all of which should be favorable for the employee, and some of which affect you.

1. The mandatory age for retirement for members of the Faculty has been advanced to the June 30th following their 70th birthday.

2. For those who have come to the Institute before the age of 55, the T.I.A.A. contracts will provide a minimum annual pension after retirement at 70 which, when supplemented by Social Security benefits, will come to $10,000.

3. The Institute will ask that members of the Faculty continue to contribute five per cent of their salary to T.I.A.A. The Institute will match this contribution as it has in the past, and will also make such additional payment as may be required under the T.I.A.A. contract. In your case the increase in annual payments made by the Institute will be only a small sum.

4. In estimating your pension at $10,000, Social Security benefits of about $1,300 per year have been included. If, after retirement, you should in any calendar year earn more than $1,200, you would waive part of Social Security payments. This does not apply to supplementary unearned income. These provisions are in accord with present Federal legislation and administrative rulings, which may, of course, be changed.

5. The Institute will allocate the maximum that it may, which is fifty per cent of the total annual contribution that you and the Institute make toward your retirement, to College Retirement Equities Fund. This fund has been established in order that beneficiaries may be provided with a hedge against inflation, through investment in equities whose value and whose income have increased with the years in the past, and are expected to increase in the future. The Trustees are aware of the fact that benefits from C.R.E.F. vary as provided in C.R E.F. contracts, and are not guaranteed as those accruing under T.I.A.A.; but they believe that, under the C.R.E.F.-T.I.A.A. arrangement, your total retirement benefits are more likely to exceed $10,000 than to fall below this sum.

Within the next months you will receive a new contract from T.I.A.A. describing the provisions under which your retirement benefits will be paid. Should you have any questions about that contract or this letter, or the matters touched upon in it, please do not hesitate to let me know.

Very sincerely,

Robert Oppenheimer

Professor D. Montgomery
Institute for Advanced Study

Copy to Mr. Morgan

28 October 1955

Dear Professor Montgomery:

The Board of Trustees of the Institute, meeting on October 27, 1955, have authorized me to establish a single uniform salary for all professors at the Institute. At the present time this salary is $18,000 a year. I therefore have the pleasure of writing to you that at the beginning of the next academic and fiscal year, on July 1, 1956, your salary will be increased to this figure. The provisions of your and our contributions to T.I.A.A. will be correspondingly increased.

Faithfully,

Robert Oppenheimer

Professor Deane Montgomery
Institute for Advanced Study

copy to Miss Trinterud

April 6, 1953

Dear Professor Montgomery:

At a regular meeting of the Board of Trustees of the Institute for Advanced Study on April 3, 1953, it was voted:

(1) To increase your annual salary to $14,000 a year, effective July 1, 1953, and to retain the usual provisions for contributions to TIAA;

(2) To make available to you, as to all members of the Faculty, $1,000 a year as a fund for your professional travel. This fund, if not required by you in any one year, may accumulate, but will not at any time exceed $3,000. It is to be available to you only for these purposes, and only as long as you are a member of the Faculty of the Institute;

(3) To alter the provisions for your retirement--as for all members of the Faculty--in that retirement, which has until now been mandatory as of the June 30th following your 65th Birthday, will now become optional with you from your 65th Birthday on, and will be mandatory only as of the June 30th following your 68th Birthday.

Yours sincerely,

Robert Oppenheimer

Professor Deane Montgomery
Institute for Advanced Study
Princeton, N. J.

Montgomery

DOMESTIC SERVICE
Check the class of service desired; otherwise this message will be sent as a full rate telegram

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WESTERN UNION

1206

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE
Check the class of service desired; otherwise this message will be sent at the full rate

FULL RATE		LETTER TELEGRAM	
VICTORY LETTER		SHIP RADIOGRAM	

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

P.WA673 PD=FAX WASHINGTON DC 26 351 PME=
DR J ROBERT OPPENHEIMER, DIRECTOR INSTITUTE FOR ADVANCED STUDY=
PRINCETON NJER=

KURT GODEL AND DEANE MONTGOMERY ELECTED TODAY TO MEMBERSHIP IN THE NATIONAL ACADEMY OF SCIENCES=

ALEXANDER WETMORE HOME SECRETARY=

THE INSTITUTE FOR ADVANCED STUDY
SCHOOL OF MATHEMATICS
PRINCETON, NEW JERSEY

DMM
Montgomery

Dear Oppenheimer

March 19, 1953

Weitzenböck is studying with Leighton who studied with Morse. They would benefit by contact with Morse who seems willing to have them. Since we are not crowded and not money is involved I think we should take them. The mathematics school has always fully admitted qualified people who were financed and I think this policy should continue, as the one which best serves mathematics. The people here in mathematics have a variety of interests and it is natural to have a varied group of members

(over)

as has always been done. Physics
works extremely well with a loosely
group but our system is probably a
good one for us and for mathematics

Deane Montgomery

MEMORANDUM

TO: The Director

FROM: Minot C. Morgan, Jr.

SUBJECT: Additional Mortgage - Prof.Montgomery **DATE:** January 28, 1954

Dear Dr. Oppenheimer:

I was recently approached by Professor Montgomery with regard to the possibility of an additional mortgage of $4,000 to $5,000 to pay for the cost of putting an addition on his house. I wrote Mr. Leidesdorf and he gave his blessing to such an arrangement provided that it has your approval.

Approve
R D

Respectfully submitted,

M. C. M. Jr.

MCM:cu

MEMBER - Montgomery, Deane

CROSS REFERENCE

SEE: Leidesdorf, Samuel D. - Trustee

Memo from Mr. W.F. Gerlach to Mr. Leidesdorf, dated February 27, 1951 about professors' mortgages. Also Mr. Leidesdorf's letter to Dr. Oppenheimer dated February 28, 1951 concerning Professors Cherniss and Montgomery.

January 19, 1951

Dear Professor Montgomery:

It gives me great pleasure to inform you that on the unanimous vote of the Faculty and the Board of Trustees of the Institute for Advanced Study you have been appointed a Professor in the School of Mathematics of the Institute. The term of your appointment starts on July 1, 1951, and continues until the age of your retirement. According to present practices, retirement takes effect on the 30th of June after you have passed your 65th birthday. Your initial salary has been fixed at $12,500 a year. In order to make provision for your retirement, the Institute would be glad to contribute 5% of this sum ($625.00) toward the purchase of a retirement policy provided that you will make an equal or greater contribution.

I should add that all of us at the Institute welcome this appointment, and look forward to a future of happy association with you. This step is taken in appreciation of your past work, in high hopes for the work of the future, and with the full recognition of the value which your counsel will be in guiding the Institute's policies.

Robert Oppenheimer

Professor Deane Montgomery
Institute for Advanced Study
Princeton, N.J.

Copy: Miss Trinterud

DEANE MONTGOMERY

Born September 2, 1909, in Weaver, Minnesota

B.A. Hamline University, St. Paul, 1929
M.S. University of Iowa, 1930
Ph.D. " " " 1933

Hon.D.Sc. Hamline University, 1954
" " " Yeshiva University, 1961
Dr. of Laws Tulane University, 1967
Hon.D.Sc. University of Illinois, 1977

Positions held:
University of Iowa, Graduate Asst., 1930-33
Harvard University, NRC Fellow, 1933-34
Princeton University and I.A.S., NRC Fellow, 1934-35
Smith College, Asst.Prof., 1935-38; Assoc.Prof., 1938-42; Prof., 1942-46
I.A.S., Guggenheim Fellow, 1941-42
Princeton University, Visiting Assoc.Prof., 1943-45
National Defense Research Council, part-time, 1944-45
I.A.S., Member, 1945-46; Permanent Member, 1948-51; Professor, 1951-
Yale University, Assoc.Prof., 1946-48

Field: Topology

Honors and societies:
Member, American Mathematical Society; Mathematical Association of America; Sigma Xi; American Association for the Advancement of Science; National Academy of Sciences (1955); American Philosophical Society (1958); National Research Council

American Mathematical Society Colloquium Lecturer, 1951

President, American Mathematical Society, 1960-62

President, International Mathematical Union, 1974-78

April 1980