

Einstein Collecta

*Friday June 3
7p.m.*

Meeting of NSF panel in Princeton 3-4 June 1977

Dinner

Panel Members

- Yes Dr.* Joseph BIRCHFIELD - Dept. of History, Northern Illinois University, DeKalb, Illinois 60115 *815-753-1000*
- Yes Dr.* Arthur FINE - 1564 Ashland Avenue, Evanston, Illinois 60201 *312-475-0298*
- Yes Dr.* Ian HACKING - Dept. of Philosophy, Stanford University, Stanford Calif. 94305
- Yes Dr.* Thomas HUGHES - 8330 Millman Street, Philadelphia, Pa. 19118
- Yes Dr.* Nathan REINGOLD - Joseph Henry Papers, Smithsonian Institution, 1000 Jefferson Dr. SW, Washington, D.C. 20560
- Yes Dr.* William WALLACE - School of Historical Studies, IAS.
- Yes Dr.* Ronald OVERMANN - Assistant Program Director, History & Philosophy of Science, National Science Foundation, Washington, D.C. 20550
- NO Dr.* George FARR - National Endowment for the Humanities, 806 15th Street, N.W., Washington, D.C. 20506
- Yes Dr.* Eloise E. CLARK (Betsy) - Assistant Director, Biological, Behavioral, and Social Sciences, National Science Foundation, Washington, D.C. 20550
- Yes Mrs.* Bertha W. RUBINSTEIN *(Bel) - Special Assistant, Division of Social Sciences, National Science Foundation, Washington, D.C. 20550
- No Dr.* Martin LEFCOWITZ - Assistant General Counsel, National Science Foundation, Washington, D.C. 20550
202-632-4398
- Yes* *Elmer Havens* - *202-632-5938* Grants Section II, Div. of Grants & Contracts NSF

*Bertha Rubinstein home address: 3708 Albemarle St., N.W.
Washington, D.C. 20016

May 27, 1977

Ron Overmann of NSF called re meeting of Einstein Papers committee at the Institute June 3-4, 1977.

1. He asked whether you were planning to attend the open meeting on Friday afternoon, June 3, at 3:00 p.m. I said I was under the impression that you were.

2. He then asked whether you would be able to attend the meeting for about half an hour on Saturday morning, and told me the agenda for that day was as follows:

9:00 a.m. - 10:00 a.m. - General discussion
10:00 a.m. - 10:30 a.m. - Harry Woolf
*10:30 a.m. - 12:00 noon - Stachel; Bailey; plus 2 trustees
12:00 noon - 1:30 p.m. - Lunch
1:30 p.m. - 3:00 p.m. - Stachel; Bailey
3:00 p.m. - 4:00 p.m. - conclusion

*He said he had no objection to your remaining at the meeting during this period--but that you might want to discuss this with Messrs. Bailey & Stachel.

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY 08540

Telephone-609-924-4400

THE DIRECTOR

May 31, 1977

MEMORANDUM

Subject: Meeting of NSF/Einstein Papers Panel at IAS - June 3-4, 1977
Board Room

NOTE: for Carl Pope

The following persons will be arriving the evening of June 2, 1977:

<u>Name</u>	<u>Apartment</u>
Joseph Birchfield ✓	unknown
Eloise Clark ✓	44 Einstein
Arthur Fine ✓	unknown
Elmer Havens ✓	42 Einstein Drive
Thomas Hughes	Olden Farm guest apartment
Nathan Reingold ✓	unknown
Bertha Rubinstein ✓	44 Einstein
Ronald Overmann (chairman) ✓	330 South Olden
<u>Arriving morning of 3 June</u>	
Ian Hacking ✓	unknown
George Farr ✓	330 South Olden
Martin Lefcowitz ✓	42 Einstein Drive
William Wallace ✓	IAS MEMBER

TOTAL: 12

unassigned apartments:

41 Einstein Drive
47 Einstein Drive

\$15.00 per day each.

Aid

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY 08540

Telephone-609-924-4400

THE DIRECTOR

May 31, 1977

MEMORANDUM

Subject: Meeting of NSF/Einstein Papers Panel at IAS: June 3-4, 1977,
Board Room

NOTE: For Bea Stalcup

1. 9:00 a.m. Friday, 3 June

a) Total of 12 people meeting -- please have coffee and buns.

2. They will have lunch in cafeteria.

3. 3:00 p.m., Friday, 3 June

There will be open meeting when they will be joined by Dr. Woolf and members of Historical Studies. The total number joining the meeting is unknown; please have sufficient number of chairs available.

4. 9:00 a.m., Saturday, 4 June

Approximately 17 people will attend this meeting. As we discussed, please have coffee urn available as well as sufficient number of cups--they are making their own coffee.

5. Dr. Ronald Overmann of the National Science Foundation is the Chairman of the meeting.



cc. Mr. Carl Pope

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY 08540

Telephone-609-924-4400

THE DIRECTOR

May 31, 1977

MEMORANDUM

Subject: Meeting of NSF/Einstein Papers Panel at IAS: June 3-4, 1977,
Board Room

NOTE: for SWITCHBORAD

On Friday, 3 June, from 9:00 a.m. to approximately 5:00 p.m. the above panel will meet in the Board Room; they will meet again on Saturday, 4 June, from 9:00 a.m. to approximately 4:00 p.m.

The following will attend:

Dr. Ronald Overmann, NSF (Chairman)
Dr. Eloise Clark
Dr. George Farr
Dr. Arthur Fine
Dr. Ian Hacking
Dr. Elmer Havens
Dr. Thomas Hughes
Dr. Martin Lefcowitz
Dr. Nathan Reingold
Mrs. Bertha Rubinstein
Dr. William Wallace (IAS member)
Dr. Joseph Birchfield

There will be a dinner for the above at Olden Farm on Friday, 3 June, 7:00 p.m.

If there are any questions re above please call our office.



cc. Mr. Carl Pope

OFFICE OF THE DIRECTOR

I.A.S.

Memo to:

Memo from:

Date:

Aida:

Overman called - there will be an open panel meeting June 3 between 3 and 5 p.m. on the future directions of the History and Philosophy of Science program to which he (and any other historians at the Institute) is invited to attend.

*Informed Betty Horton -
May 18, 1977*

May 27, 1977

Ron Overmann of NSF called the meeting of Einstein Papers committee at the Institute June 3-4, 1977.

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9:00 a.m. - 10:00 a.m. - General discussion
10:00 a.m. - 10:30 a.m. - Harry Wolf
*10:30 a.m. - 12:00 noon - Stachel; Bailey; plus 2 trustees
12:00 noon - 1:30 p.m. - Lunch
1:30 p.m. - 3:00 p.m. - Stachel; Bailey
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*He said he had no objection to your remaining at the meeting during this period--but that you might want to discuss this with Messrs. Bailey & Stachel.

May 3, 1977

Dr. Ronald Overmann
Assistant Program Director
History and Philosophy of Science
National Science Foundation
Washington, D.C. 20550

Dear Dr. Overmann:

In connection with your meeting at the Institute on 3-4 June, I am enclosing the following material:

1. Map No. 1 is a general map of the area.
2. Map No. 2 shows the academic buildings of the Institute, and I have arranged for the Panel to meet in our Board Room, which is located in the lower level of the dining hall building.

*Bill NSF
9:00 a.m. - 5:00 p.m.
Fri & Sat.*

3. Map No. 3 shows the housing facilities. The following apartments have been set aside for your use:

- 330 South Olden (2 story house) - accommodates 4 adults
- 41 Einstein Drive - accommodates 2 adults
- 42 Einstein Drive - accommodates 2 adults
- 47 Einstein Drive - accommodates 2 adults
- 44 Einstein Drive - Mrs. Rubinstein and Dr. Clark

*Bill
Individuals*

4. A general sheet on travel which may be of assistance.

I will wait to hear from you regarding car and other arrangements for Saturday, June 4th. Please let me know if you have any questions concerning the above, or if there is anything further I can do.

Sincerely yours,

Aida L. La Brutte
Secretary to the Director

Enclosures

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY 08540

Telephone-609-924-4400

Personnel Services

April 26, 1977

TO:

Dr. Woolf
~~Aida LaBrutte~~

FROM:

Carl R. Pope

SUBJECT:

NSF/EINSTEIN PANEL - June 2 - 3, 1977

The following housing units may be assigned to the group attending the meeting.

<u>Housing Unit</u>	<u>Family Size</u>
330 South Olden	4 persons
41 Einstein	2 persons
42 "	"
47 "	"

Are they rent free or do we have an account to charge?

Charge Princeton University?
Aida

They are to be charged!
HP

C. R. Pope

C. R. Pope
Assistant General Manager

CRP:bar

NATIONAL SCIENCE FOUNDATION

WASHINGTON, D.C. 20550

MAR 4 1977

Mr. Herbert S. Bailey, Jr.
Director
Princeton University Press
Princeton, New Jersey 08540

Dear Mr. Bailey:

In the letter awarding the planning grant for the Einstein papers project, it was stated that I would send you a letter which would set forth in greater detail the topics we expect you to address in the proposal to be submitted this Spring. This letter is intended to serve that purpose.

In order to prevent any conflicting directions from the two federal agencies considering the proposal, viz. the National Science Foundation and the National Endowment for the Humanities, I have tried to reconcile as much as possible the views which may result from their differing perspectives. Consequently, you should receive a letter from Dr. George Farr of the N.E.H. addressing similar questions. I should state at the outset, however, that, because the two agencies have somewhat different missions, they may make different decisions about whether the proposal meets all the requirements necessary for them to recommend support.

The first concern of the History and Philosophy of Science Program is to find out what the end product of this project is to be, the uses to which it is expected to be put, and the audience to which it is expected to be addressed. What kind of edition do you intend to produce? What will be the distribution of papers in the collection (between correspondence, notes, drafts and published papers)? What will be the basis for selection of some documents and the exclusion of others? Is anything to be held back from publication by the editors or by the estate and why? If something is to be withheld, when will it be released? You should be as specific as possible in describing these materials.

What will be the plan of operation? How much of a search for additional documents will be undertaken? Where? What is the publication schedule? Can you break the schedule down into clearly defined phases? Will everything be published in letterpress or will some be in microfiche? What kind of textual apparatus will be provided? Will the Einstein estate have any control over the editorial apparatus (i.e., will the editor be independent to write what he thinks is appropriate without final approval of the trustees)? What will be the annual rate of expenditure of the budget as well as the projected total budget? How will Princeton University Press share in the costs? How will the final volumes be priced? What other publications in addition to the "Complete Edition" are anticipated?

(2)

The second concern is the editorial staff of the project. We will need descriptions of the qualifications of all non-clerical members of the staff, including vitas. You should describe the role of each of these people. Who will be on the editorial advisory board and what will its role be? We are concerned in this regard that the board play an active role in the production of the edition.

A third concern is with the institutional and legal issues involved. None of these issues is easily dealt with, and I cannot be sure exactly of their ramifications. Our Division of Grants and Contracts can provide you with additional comments regarding National Science Foundation publication policies, but let me list some of the issues as I understand them:

Because the facilities of the Institute for Advanced Study will be used during the course of the project, we believe you should have Dr. Harry Woolf, in his capacity as director of the Institute, indicate institutional approval. He can do this either by signing the cover sheet of the proposal or by sending a letter in which he approves of the use of Institute facilities for this project. It may also be appropriate to appoint Dr. Woolf to the Editorial Advisory Board.

We would like to be provided details on how the Princeton University Press was chosen to be publisher. This is a routine requirement for all projects which result in publication of some kind of edition. Was there a competitive bid? Were any other presses approached by the estate? If the answer is "no" to both of these questions, a justification for the selection of the Princeton University Press will have to be provided. Along with this, it should also be explained how the Press will provide for the needs of scholarship as well as the Press' usual role in producing a quality edition. We need this kind of information because it is unusual for the Foundation to make a grant directly to a press for this kind of project. In the past, we have generally made the award to a scholarly organization which then contracts with a press. I should add, of course, that there is no prohibition to a direct grant as our actions in supporting the preliminary stages attest. In addition, proposals involving publication support are required to have a detailed description of the provisions for the disbursement of any royalties resulting from the publication of the edition.

We routinely require information on other sources of support for all projects (see page 7 of the "Grants for Scientific Research" booklet). This requirement is especially germane in this case, since it is not possible for the National Science Foundation to fund the entire project by itself. What other sources have been or will be approached and what other support can you anticipate?

(3)

The final area we think should be addressed is the problem of access of scholars to the collection during the period of the project. If, as seems likely, this project will last well over a decade, it would be desirable if provisions could be made in advance for scholarly research projects on Einstein to progress. Will it be possible to accommodate other scholars' needs and how?

The History and Philosophy of Science panel will be meeting in Princeton on June 3 and 4. We now plan to hold our discussion of the Einstein Project on Saturday, June 4, in order that Dr. Farr of the N.E.H. may participate in the site visit. Representatives from the Office of General Counsel and the Division of Grants and Contracts of the N.S.F. will also likely be present as well as additional members of the staff of the Division of Social Sciences and the Directorate for Biological, Behavioral and Social Sciences. As I told you when we met in January, the N.S.F. will not commit additional funds to this project until and unless all of the issues listed above are satisfactorily answered by means of a detailed and effective plan. The planning grant should not be seen as an advance commitment by the N.S.F. for support beyond its scheduled duration. Any interim period between the end of support under this planning grant and the start of support under the new grant (if it is recommended) will have to be covered by other sources of support.

I hope this letter gives a clearer idea of what we expect the new proposal to contain. I will be glad to answer any questions you or Dr. Stachel may have, as well as look at and comment upon any preliminary materials you care to send me. I hope your work in the next several months goes well.

Sincerely,

Ronald J. Overmann
Assistant Program Director
History and Philosophy
of Science

cc: Dr. John Stachel c/o Princeton University Press
Dr. Harry Woolf, Institute for Advanced Study
Dr. George Farr, National Endowment for the Humanities
Dr. E.E. Clark, AD/BBS, National Science Foundation
Dr. H. Costner, SOC, National Science Foundation
Mr. John H. Raubitschek, OGC, National Science Foundation

ANNUAL REPORT TO
THE EINSTEIN ESTATE, AND
PRINCETON UNIVERSITY PRESS

In this brief report on progress and problems during my first year of work, which started on January 15, 1977, I shall begin by outlining the progress I think has been achieved during the year. Then I shall discuss the outstanding problems that I feel confront the Project now. Finally, I shall outline how I propose to proceed in the coming year given the current difficulties.

OUTLINE OF PROGRESS

1) First of all, the preparation and submission of the grant proposals to the National Science Foundation and National Endowment for the Humanities had put the Einstein Project on the threshold of substantial, long-term financial support.

2) As part of the grant proposals, a preliminary plan of editorial work had been developed for discussion with the Estate, Press, Editorial Committee that was to be formed, and Editorial Advisory Board. This plan was tentative, and no doubt would have been subject to both immediate revisions on the basis of further discussions, as well as longer range change based on further experience and enlarged staff. But it did provide a basis for such discussion and further work on the Project in the coming period.

3) Work on the full-sized copies of the Archive, to conform them with the originals and organize them into a basis for the editorial work, is well

under way. Work began during the summer when the Editor and two assistants were involved; but since the fall has had to proceed at a slower pace, since only the Editor has been allowed access to the original documents. At this point, about one-fourth of the work has been done; and it is estimated that it will take somewhat over one year more to complete the job. When it is completed, it will enable the editing of the Einstein Papers to take place with minimal need to consult the originals.

4) Work on preparing a computerized index to the entire Archive, based on the full-sized copies, is also well under way. The computer programs have been written and tested, and several hundred items already indexed using this system. When this index is completed, it will constitute the first complete index to the Einstein Archive, enabling scholars to obtain quick access to information about documents in the Archive, names, places and subjects mentioned, etc.

5) Substantial progress had been made on a project to locate and contact all living correspondents of Einstein. With their consent, copies of their correspondence are then sent to the correspondents, together with a list of specific questions about obscure points in the correspondence as well as a general request for any further information they would care to supply.

6) Work on compiling an extensive bibliography of books and articles about Einstein, his work, and related areas in the history and philosophy of science, social and political history, etc. is continuing. The first results of this work are contained in the bibliography of the National Science Foundation proposal, but several hundred more items have since been added. The ultimate hope is to publish this bibliography.

7) The assembling of a working collection of the most important and useful such items to aid the work of the Project is also continuing.

8) The Editor attended the 1977 Institute for the Editing of Historical Documents. This is a two-week summer institute held annually by the National Historical Publications and Records Commission (NHPRC) to give training to prospective historical editors in the basic techniques developed for the collection, transcription, editing and publication of historical documents.

OUTSTANDING PROBLEMS

It seems to me at this time (and has so seemed since I assumed the position) that the only realistic source for the large initial funding needed for the Einstein Project is the United States government, through such agencies as the National Science Foundation, National Endowment for the Humanities and NHPRC. Therefore, I made it my number one priority during the first nine months of work to try to secure that funding under conditions that would be honorable and acceptable on the one hand to the Editor, the Estate and the Press, and to the relevant government agencies on the other. This task was made initially difficult by a number of factors, of which the following are clear to me:

1) the rejection of the original proposal prepared by the Estate and Press and submitted to the National Science Foundation and National Endowment for the Humanities; we began working with only a small planning grant from the National Science Foundation due to expire in mid-1977.

2) the difficulties which these agencies had recently experienced with the funding of the Darwin Papers, which meant that any large-scale editorial project being submitted at this moment would be subject to the most careful scrutiny.

3) my lack of background in history of science and lack of experience in any major editorial project made me largely an unknown quantity in the eyes of the people who had to decide on funding such a project.

Therefore, the first half-year of work was spent primarily in giving myself a crash course in historical editing practices, becoming familiar with the Einstein Archive, establishing a relationship with the agencies in question, and developing a preliminary plan of work for the editing of the Einstein Papers. All of this activity culminated in the preparation and submission of the grant proposal to the National Science Foundation and National Endowment for the Humanities in June of last year, and the meeting with the National Science Foundation History and Philosophy of Science Review Panel in July.

By last fall, I think that the conditions existed for reaching an acceptable agreement for funding with the National Science Foundation: it seems that the basic decision to fund our project for the next five years had been taken by the Panel, and confirmed up to the level of the National Science Board. While negotiations over the exact terms proposed would be necessary, and some of the terms originally suggested by the National Science Foundation were clearly unacceptable to the Estate and Press--as well as the Editor--a definite impression was gained (and confirmed in subsequent conversations with personnel of the National Science Foundation) that if an agreement on basic outlines was reached, there were no rigid conditions that would be obstacles to a final Grant award. An extension of the original planning grant was given in order to allow consultation with the Editorial Committee, which was to be formed, on possible revisions of some features of the original plan of work.

Close collaboration with such an Editorial Committee was one of the features of the original plan of work, as well as necessary to make progress with

the revised Grant application. However, in the fall of last year I was asked not to proceed with the negotiations with the National Science Foundation and National Endowment for the Humanities, and not to call together the Editorial Committee. Since that time, all further action on the National Science Foundation and National Endowment for the Humanities Grant Applications has been suspended. It is my understanding, based on informal contacts with National Science Foundation personnel, that the funding set aside for our project can be held perhaps for six months or so; but that if no resolution of the issue is reached by then it is very unlikely that it can be held any longer.

I still feel that this is the only realistic source of the large funding needed to get started; that an entirely honorable agreement could be reached, and that at any rate the negotiations should have been carried on until it became obvious whether this was or was not possible. I also have been given the impression (and this is quite independent of any merits or defects that I may have as Editor) that if the present negotiations collapse by default that the chances of reviving them in the near future--under my Editorship or any one else's--are slight indeed. At any rate, the present proposal must either be pursued to the end or withdrawn, and some decision must be made fairly soon.

If the project is to continue in any form, some decision must also be reached about whether to proceed with one Editor, or to change the editorial set-up as outlined in the Contract between the Estate and the Press. In addition, some final decision must be made, by both sides, as to whether I will continue as Editor. As of the moment, I am planning to stay only until mid-1979, subject to reaching an agreement with the Estate and Press.

PROPOSED WORK FOR COMING YEAR

Since these difficulties arose which prevented proceeding with my plan of work, and since becoming aware that Dr. Nathan was unsatisfied with my work as Editor, I have tried to develop and work on a plan of activities for the near future which would be of some use, as the first phase of the editorial work, no matter what the resolution of the current difficulties. It has seemed to me that no matter who does it or when and how the editorial work is done, a fully conformed copy of the Einstein Archive will be needed, as well as a complete control index to all the documents in the Archive. It is also obviously of priority to continue to contact all living correspondents. Therefore I propose the following plan of work for the coming year and a half, assuming that our current problems are not resolved by either going ahead as originally planned, or by my immediate dismissal.

1) I shall continue to personally conform the copyflo made from the microfilm of the Einstein Archive to the original documents. The duplicates must also be organized and filed, which work can be done with the help of the Secretary. As stated above, I estimate that this will take something over one year to complete.

2) The programs for the computer indexing of the Archive have been worked out. The indexing problem can be divided into two rather distinct portions:

1) Development of a control index, which will contain a description of the nature of each document, its date, place of origin, sender and receiver if it is a letter, etc. In short, the information about the document needed to have full control over such a large collection of material (perhaps 10,000 documents).

2) A name and subject index, which would give access to the contents of the

document. I believe it will be possible to carry out the first or control indexing of the material in the period envisioned; once this is done, one will easily be able to get such useful items as a complete chronological list of all documents, or a list of all correspondents, etc. However, I think it neither possible nor advisable to do the content indexing in this period. First of all the job is too vast for one or two persons, since it will require the actual scanning-reading of each document. Secondly, the exact way in which it is done should be a decision of the actual editorial staff that will use it. Therefore, I propose to continue developing and testing the computer program for this portion of the index, but not to index more than a small sample of documents needed to test it. The Secretary will be able to help with all this work--indeed, it will be impossible to do without such help.

3) We shall also continue the work of identifying and contacting living correspondents, and getting their comments and reminiscences about their contacts with Einstein.

4) Time will be given to the search for additional documents, and keeping up and enlarging the bibliography and working collection, to the extent that the above higher priorities permit.

✓ file

Einstein Papers

Sulamy / Helen Dubois of old Estate gives up royalties
Rather a consultant fee for Helen - Consultant to Board

Text of Agreement

Bailey - Suggests we have Otto see it for annual

Institute or Press should administer grants (compare 2)

Point 9. Prefers substantially advised advisory body for members of Editorial Committee

- Exemplars of
 - American Physical Society * ○
 - American Historical Association * ○
 - American Philosophical Society
 - Sigma Xi
 - AAS * ○
 - AAPS
 - American Philosophical Association * ○
 - Philosophy of Science Association * ○

These 5
as called

Suggest 5 to Otto to pick them as

Point 5 as rewritten

Point 2 add more about Editorial Office of Einstein
Project

after Otto goes, have lawyers go over

NSF letter

Resubmitted Administration
Establishment of Board

- The point suggested by NSF

Harry to call Otto Nathan to tell him about Einstein Capstone
all present negotiations on Einstein Papers

Herb tries to get Overman to agree to think going ahead and appointing
members of his Advisory Board.

Alfred Hake to set up account for Einstein Papers Project
In January 1, 1978, annual of initial disbursements.

I accompany Herb to see Otto Nathan - Herb will call

On Arnold's Editor, our position is that this is prerogative of
Editor.

[Harry started about McCombs in fall]

We take up Einstein Center idea with John Stapp

Preparation of workshops following Einstein Centennial Capstone
Set up a committee to prepare all submitted projects.

Buy Otto ^{Nathan} down for continuing discussions of project, also
to clarify relation with John S.

Leave matter of Hebrew University open - our position is that our language feel that an
advised by Hebrew University.

INSTITUTE
DRAFT with COMMENTS
BY JH FOLLOWING
CONFERENCE with
HERB BAILEY

D R A F T

Memorandum of Agreement

made at Princeton, New Jersey, this day of 1977

BETWEEN

The Institute for Advanced Study of Princeton, New Jersey (hereinafter called the Institute)

AND

Princeton University Press, of Princeton, New Jersey (hereinafter called the Press)

AND

The Estate of Albert Einstein (hereinafter called the Estate)
relating to the editorial preparation of
THE PAPERS OF ALBERT EINSTEIN

1. This agreement represents a modification of the original agreement between the Press and the Estate of Albert Einstein (hereinafter called the Estate), dated February 22, 1971, relating to THE PAPERS OF ALBERT EINSTEIN. The purpose of this agreement is to establish a working arrangement between the Institute, the Press and the Estate, enabling the three parties to carry out jointly various functions in accordance with the original contract between the Press and the Estate. This joint effort is consonant with the provisions in Paragraphs 2 and 8 of the original contract, a copy of which is attached to this agreement. It is intended that this agreement will provide a basis for mutual efforts, in editorial, fund-raising and administrative matters, while remaining faithful to the provisions of the original contract.
2. The Institute, the Press and the Estate will work together to raise funds to support the editorial preparation of the project.
3. The Institute, the Press and the Estate will jointly review the annual budget for the project.

- 2 -
S.

4. In accordance with the agreed-upon budget, the Institute will administer all grants received from foundations and other donors for the project.

5. The Institute, the Press and the Estate will ^{agree} ~~decide~~ jointly with respect to appointments to the Editorial Advisory Board or to ~~the~~ ^{any} ~~Editorial Committee~~ ^{other committees set up} ~~Editorial Committee~~ ^{established by the project}.

6. The sponsorship of the Institute, the Press, the Estate, and Princeton University, will be jointly recognized in the published volumes of THE PAPERS OF ALBERT EINSTEIN.

7. Neither the Institute nor the Press take any financial responsibility for the cost of the project beyond the total of the funds raised for carrying out the project. This paragraph does not prevent contributions to the project in money or services by either the Institute or the Press, as both have made in the past.

8. This agreement may be terminated by any of the parties upon six months' written notice, except that any commitment under this agreement for the administration of funds raised from outside sources must be continued until the termination of the grant period or periods from such sources.

9. In the event of disagreement between the Institute, the Press and the Estate, the issue shall be arbitrated by a panel ^{appointed by the} ~~consisting of the~~ ^{properties of drawing in the membership of three of the following organizations:} ~~members of the Editorial Committee of THE PAPERS OF ALBERT EINSTEIN,~~ [LIST 5]
except that members of the Editorial Committee who are also members of the Institute or faculty members of Princeton University or in any way connected with the Estate may not take part in such arbitration.

[Handwritten signature]

10. This agreement may not be assigned by either party.

IN WITNESS WHEREOF

.....
for The Institute for Advanced Study

.....
for Princeton University Press

The Estate of Albert Einstein has examined this modified agreement between The Institute for Advanced Study, the Princeton University Press and the Estate, and has no objection to it.

.....
for the Estate of Albert Einstein

.....
for the Estate of Albert Einstein

There will be changes in and additions to the above draft. There should probably also be corresponding changes in the contract between the Editor and the Estate-and-Press. In particular, the Editor's contract should state that the Editor will consult the Institute, the Press and the Estate about appointments to the Editorial Committee. Then this modified agreement will provide that the Institute, the Press and the Estate will be so consulted. It also occurs to me that the Editorial Committee, without members of the Institute or of the Princeton faculty, might serve as arbitrators in any dispute between the Editor and the Estate-and-Press.

ABSTRACT

Partial support is requested, under the NSF Continuing Research Grants Program, for the next five years of work on the editing of a printed edition of the Complete Writings of Albert Einstein, in about twenty volumes. This edition will include all of his published papers, unpublished manuscripts and correspondence, scientific and non-scientific, in the original language. In addition introductory material, commentaries, explanatory notes and indices in English are to be prepared. The work during the period of this grant request will include: complete cataloguing and indexing of the Einstein Archive in Princeton, which will form the basis of the edition; a systematic search for additional material; and transcription of manuscripts. Finally, the materials from Einstein's Swiss Years, 1895-1914, will be edited for publication during this grant request period. The Staff will include an Editor, Associate Editor, two Assistant Editors, Archivist, two secretaries and student assistants. It is estimated that the complete project will take about fifteen years.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

RESEARCH GRANT PROPOSAL

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I. INTRODUCTION

The aim of this Project is the publication of a complete printed edition of the published and unpublished writings, drafts, and correspondence of Albert Einstein. It is all to be published in the original languages, with introductory material, supplementary documents, annotations and indices (all in English) in about twenty volumes.

Albert Einstein lived from 1879 to 1955. His life span thus encompassed the major upheavals in the physical sciences of the first half of the twentieth century: development of statistical mechanics, of relativity and of quantum theory. He also lived through or witnessed such social upheavals as: two World Wars, the German Revolution of 1918, and the Weimar Republic; the pacifist movement between the wars; the rise and fall of fascism; the upsurge of anti-Semitic activities and propaganda; the growth of Zionism and self-awareness among the Jewish people, and the founding of the State of Israel; the invention of nuclear weapons and the threat of global destruction from nuclear war. In all of these happenings, Einstein played a role, as actor, critic, or commentator.

In the scientific transformations which changed the structure of classical physics, a structure which had been erected and elaborated in the preceding three centuries, Einstein's role was pre-eminent.¹

His earliest work showed an ability to penetrate to the deepest levels of theoretical physics--the conceptual underpinnings of the structures which most physicists are content to elaborate--and to expose the tensions and contradictions among these foundational concepts. For example, he had a profound feeling

for missing symmetries: his unhappiness with the asymmetry of an explanation when the phenomena manifested a symmetry played a large role in his development of the special theory of relativity.

But beyond this profound critical sense, which made him receptive to philosophical issues at an early stage in his career, he had the ability to utilize these tensions and contradictions creatively, to play one conceptual scheme against the other in such a way as to yield new points of view; new concepts which could be elaborated into new theoretical structures.²

Thus, it seems that his simultaneous concerns with the foundations of statistical concepts as applied to ensembles of particles, with Maxwell field theory, and with the relativity principle in Newtonian mechanics exerted a cross-fertilizing influence upon each other. Out of his ground-breaking statistical mechanical studies of fluctuation phenomena arose his belief in the particulate structure of the electromagnetic radiation field, and the concept of the photon. Einstein's resulting skepticism about the absolute validity of Maxwell's theory led to his desire to found his relativistic considerations on as fundamental a set of assumptions as possible; this led him to the postulate of the constancy of the velocity of light. Out of the need to reconcile this postulate with his profound conviction that the relativity principle could be extended from mechanical to electromagnetic phenomena arose his critical study of the simultaneity concept, and ultimately the new special relativistic kinematics and dynamics. Of course, what is presented here linearly in a sequence of sentences should really be seen as a series of mutually interlocking considerations.

This list could be continued indefinitely through the course of Einstein's scientific career, but perhaps enough has been said to indicate the importance of studying Einstein's work as a whole. Since his correspondence often contains

additional clues to the interrelationships between the published papers, it is important that both be studied together.

While he worked in relative isolation from the scientific community during the crucial period in which he was elaborating his first work in all of these areas, after 1905 he gradually came into increasingly closer contact with the leading figures in that community. During his years in Berlin he played an important role in several German scientific institutions, both officially and informally. He maintained an extensive correspondence with leading scientists and philosophers about the issues raised by his work and that of others. Thus, in addition to the almost 300 scientific papers published during his lifetime, his correspondence--which is still unpublished in the vast majority--promises to illuminate and clarify the evolution of physics and its philosophy during the first half of the twentieth century. The complete correspondence, together with unpublished manuscript drafts, will also be of importance to scholars in many fields besides physics and the history of physics, such as the study of scientific creativity, the evolution of the physics community in this century, the emergency of the scientist as a public figure; as well as for a much more detailed and profound investigation of Einstein's unique role.

On social and political issues, it seems to have been the First World War which prompted Einstein to his first public intervention³: an attempt to counter the war hysteria among German intellectuals. It will be interesting for scholars to see what earlier material exists in private papers leading up to his pronouncements on such issues. At any rate, from World War I onward, and especially after the world-wide publicity given to the confirmation of his general theory of relativity by the famous 1919 English eclipse expedition, Einstein was increasingly called upon--or felt himself called upon--to correspond with many public figures on these issues, as well as to make numerous statements

on current events. He was well-known in the 1920's for his work for international reconciliation through the League of Nations, and for resumption of intellectual cooperation between the former enemy nations; for his efforts to awaken a sense of selfhood among the Jewish people through Zionism; as well as for his tireless fight against war. In the 1930's, after the rise of Hitler to power, he made his voice heard in defense of world Jewry, and in warning against the fascist peril, which led him to urge the re-arming of the West, abandoning temporarily his previous position against all armaments. He spoke up for socialism as a fairer and more equitable system than capitalism, while voicing serious objections about the political aspects of the Soviet experiment. In 1939, in view of the then threatening war, he wrote his famous letter to President Roosevelt, calling attention to the possibility of the production of atomic bombs by Nazi Germany. The actual development and use of atomic weapons by this country caused him to become the leader in the atomic scientists' efforts to educate and mobilize public opinion here and throughout the world to the dangers of a nuclear arms race, and to issue many calls to develop some form of a world authority for the supra-national control of atomic weapons and the abolition of war. The advent of the cold war and McCarthyism in the late forties and early fifties led him to repeatedly urge American intellectuals to resist pressures for conformity and abdication of their political and intellectual freedom. The holocaust and its tragic post-war aftermath--the fate of the Jewish survivors--confirmed his belief in the necessity of establishing the State of Israel as the only realistic answer to the plight of the Jewish people, while he continued to urge the need for accommodation with the Palestinian people.

The study of Einstein's views, expressed over three decades, on the social role of science and the social responsibility of the scientist should

add much needed depth to the recent discussions of these topics. The latter sometimes tend to be rather shallow, and lacking in awareness of the historical dimensions of the issues.⁴

Einstein concerned himself with many other public issues: education, civil rights, discrimination of any kind--to name just a few. In a rough division of his correspondence and published papers, the non-scientific material stands in a ratio of about three to two to the scientific material.

Among the famous non-scientists with whom he corresponded were Sigmund Freud, Gandhi, Thomas Mann, Jawaharlal Nehru, Romain Rolland, Bertrand Russell, Albert Schweitzer, George Bernard Shaw and Chaim Weizmann--to make an almost arbitrary selection.

Thus, it is to be expected that this edition will make material available that will be of value not only to physicists and philosophers, sociologists and historians of science, but also to general historians, especially of twentieth-century German and American history, political scientists, Judaica scholars, and others.

In addition, the publication of the correspondence, notebooks, and drafts of his papers will provide material of value for psychologists and others interested in the phenomena of creativity at the highest level.

It may also be added that no large-scale, really adequate biography of Einstein has yet been written, nor will one be possible without access to his complete writings.⁵

II. HISTORY AND GOVERNANCE OF THE PROJECT

Einstein stipulated in his last Will (see Appendix A) that the literary property contained in all his published and unpublished writings be vested in a Trust to be established after his death and to be administered by two Trustees, Dr. Otto Nathan and Miss Helen Dukas. The Trustees have considered it one of their foremost obligations to make the Einstein material available to competent scholars, and eventually to provide for the publication of a complete edition of Einstein's writings and papers.

In the years since Einstein's death, the Einstein Archive at the Institute for Advanced Study has been organized for the use of scholars under the supervision of Miss Dukas, who has acted as the Archivist. Her service since 1928 as Professor Einstein's secretary gave her unique familiarity with the material which enabled her to undertake this immense task. She had the advice and help in this work of a number of physicists and historians of science, notably Professors Gerald Holton of Harvard, who advised on setting up the Archive, and Martin Klein of Yale. In addition to the work of organizing and partially indexing the collection, the Trustees have carried out an extensive search for additional material to add to the Archive, and have been able to acquire a large number of documents for the collection. Through extended correspondence with scholars, libraries, and dealers in rare documents in different parts of the world, it was possible to obtain originals or copies of letters or other writings of Einstein, particularly from his earlier years when he wrote letters and papers in longhand, without retaining copies. Arrangements were made, frequently with some difficulty, to exchange Einstein material for copies of material owned by the Archive, and this has produced important additions to the Archive.

The nature and extent of the current holdings will be discussed in the next section.

In 1971 the Trustees entered into an agreement with Princeton University Press to share in the responsibility of arranging for the editing of the material, and to assume responsibility for the publication of Einstein's Writings in book form (see Appendix B). The edition is to be a complete, printed edition of the collected papers and correspondence, published and unpublished, scientific and non-scientific, as well as such other documents and editorial material as may be deemed important for the understanding of these writings. It is estimated that his edition will comprise on the order of twenty volumes. [See attached Publisher's Statement (Appendix E) for additional details.]

An Editorial Advisory Board was established, appointed jointly by the Trustees and the Press, to assure the scientific and scholarly quality of the editorial work (see Appendix C for a list of Board Members). This Board was active in the search for an editor, and will continue to be consulted during the course of the project, on matters of general policy.

In June 1976, Dr. John Stachel was appointed Editor of the Papers of Albert Einstein, by the Trustees and the Press, with the advice of the Advisory Board. He has primary responsibility for the collecting, organizing and preparation of the material for publication of The Papers of Albert Einstein, comprising the complete works of Albert Einstein, published and unpublished, scientific and non-scientific, including correspondence. He is guaranteed normal editorial freedom for such a project, including determination of material to be included in the volumes--such normal exceptions as infringement of rights of privacy, copyright and libel being understood. He is also guaranteed complete freedom of editorial annotation and comment on the documents to be published. (See statements by Trustees and Publishers, Appendices D and E).

Dr. Stachel started work on January 15, 1977, taking leave for 18 months from his post as Professor of Physics at Boston University to move to Princeton where he holds a Visiting Senior Research Fellowship in the Physics Department at Princeton University.

Within six months of this time, he is required to prepare and submit to the Trustees, Press, and Editorial Advisory Board a preliminary plan and description of the intended edition for discussion with them. The Editor has proposed, and the Trustees and Press have agreed to, the establishment of an Editorial Committee, to be composed of about a half dozen distinguished scholars with expertise in fields related to the editorial work. This Committee is to advise him regularly on the general direction and plan of work of the project, as well as more detailed scholarly and editorial questions as they arise.

It is planned to have the first meeting of the Editorial Committee this fall. It will discuss both what has been done so far, and overall policy and plans for the edition. Thereafter, it is expected that the Committee as a whole will meet at least twice a year. The following persons have already agreed to serve on the Committee:

Professor Peter G. Bergmann of Syracuse University, one of Professor Einstein's former research assistants, and known for his work in general relativity theory and statistical mechanics;

Professor Robert. S. Cohen of Boston University, Head of its Center for the History and Philosophy of Science; known for his work on history and philosophy of science, and who has considerable editorial experience;

Professor Gerald Holton of Harvard University, known for his work in history of science, especially Einstein's development of special relativity;

Professor Martin Klein of Yale University, known for his work in history of science, especially Einstein's work in statistical mechanics and quantum theory;

Professor Harry Woolf, Director of the Institute for Advanced Study, known for his work in the history of science, and who has wide editorial experience.

In addition, at least two persons, picked for their expertise in German and American social and cultural history during this century, will be added to the Committee.

The Editors will also be consulting regularly with individual members of the Committee, singly or in smaller groups, on particular issues which arise in the course of the editorial work which require advice relating to that member's expertise.

Over the years since Einstein's death the Institute for Advanced Study has housed the Einstein Archive, contributing office space, equipment, and supplies for its work. In 1972, the archive was moved to its present location on the fourth floor of Fuld Hall. This year, the Institute very generously contributed temporary office space for Dr. Stachel and his secretary when he assumed the editorship. Dr. Harry Woolf, Director of the Institute, has joined the Editorial Advisory Board as well as the Editorial Committee. Discussions are currently under way to continue, extend, and formalize the long association between the Institute and the Einstein Project. If suitable arrangements can be worked out, the Editorial Offices will be set up on the grounds of the Institute. A statement by Dr. Woolf, for consideration with this proposal, will be sent shortly.

The Editor has enjoyed full cooperation thus far in his work with the Institute for Advanced Study and Princeton University. Both have provided him with offices, access to their libraries and other technical services, and given him a sense of welcome for which he is most grateful.

III. DESCRIPTION OF THE COLLECTION

The Einstein Archive consists of 28 file drawers filled with manuscripts, printed papers, correspondence, memorabilia, etc. There does not exist a complete catalogue or index to the entire collection; however, the collection has been separated into two sections, Scientific and Non-scientific,⁶ and an index prepared for the Scientific Correspondence. There is also an index of the Scientific Manuscripts, both published and unpublished. The Scientific Correspondence, ranging from postcards to lengthy letters, includes about 4000 items, dating from 1901 to 1955. Although the rest of the collection is not indexed (there does exist a small index of the correspondence with some well-known public figures), and no count of the total number of documents has yet been made, an idea of its extent can be gathered by comparison with the microfilm. The entire collection, except for the published papers, has been put on microfilm, and takes up 61 reels. There are about 1000 frames per reel; thus, the entire collection--excluding printed versions of published papers, but including all extant manuscripts of these papers--contains about 50,000 pages of material (allowing for some duplications, blanks, prefatory notes, etc. on the microfilms). These 61 reels break down into:

52 $\frac{3}{4}$ reels of correspondence

5 reels of published and unpublished manuscripts

3 $\frac{1}{4}$ reels of notebooks, travel diaries, personal documents, etc.

(For a slightly more detailed breakdown of the contents of the microfilm, see page 12).

Typewritten explanatory notes identifying published versions of manuscripts, identifying correspondents, giving cross-references and bibliographical

information, have been prepared by Miss Dukas for a large number of the documents and filed with them. These have been used as the basis for the index to the scientific correspondence, arranged alphabetically by correspondent and chronologically by year of the letter, and the index to the scientific manuscripts.

It is felt that there is a great need for a complete catalogue and index of the entire collection. A preliminary card catalogue will be prepared this summer, based on the descriptions, that accompany most of the documents, written by Miss Dukas, as soon as a full-sized duplicate set of the Archive, now being made from the microfilm, is available. However, it is our consideration, based on consultation with the Editor of the Joseph Henry Papers,⁷ that a computerized cataloguing and indexing procedure will make for the ultimately most efficient utilization of the information stored in the index. (See Section VIII and Appendix I for further discussion.)

CONTENTS OF MICROFILM OF EINSTEIN ARCHIVE

SCIENTIFIC PAPERS

<u>Item #</u>	<u>Reel #</u>		<u># of Reels</u>
1.	1	Published scientific manuscripts, 1914-1955	1
2.	2	Ms of <u>Meaning of Relativity</u> , with appendices; ms Autobiographical Notes & Replies to Critics for Albert Einstein: <u>Philosopher-Scientist</u> ; unpublished ms	1
3.	3-4 ^{1/2}	Notebooks of Einstein, and two students' lecture notebooks.	1 ^{1/2}
4.	4 ^{1/2} -5 ^{1/2}	Typescripts & non-holographic versions of scientific ms.	1
5.	5 ^{1/2} -end 5	Obituaries of scientists by Einstein, identified and unidentified drafts and notes, transcripts of travel diaries.	1/2
6.		Scientific correspondence:	
	6-24	1. Correspondence with colleagues, alphabetical listing.	19
	25-27	2. Miscellaneous scientific correspondence, Berlin series (less than one reel) & Princeton Series	3

NON-SCIENTIFIC PAPERS

1.	28	Holographic ms on non-scientific subjects, 1918-1955	1
2.	29	Non-holographic ms, 1915-1948 Travel diaries - originals plus transcript. Personal documents, 1879-1950	1/6
3.			1/2
4.			1/3
5.	30	Correspondence relating to Honorary degrees, Nobel Prize, and 50, 60, 70 & 75th birthdays	1
6.	31-32 ^{1/4}	Verses and limericks by Einstein, 1919-1954, poems to Einstein, curiosity file, press clippings, etc.	1 ^{1/4}
7.	32 ^{1/4} -61	Non-scientific correspondence	29 ^{3/4}

Totals

Correspondence: 52^{3/4} reels
 Published and unpublished ms: 5 reels
 Miscellaneous: 3^{1/4} reels

Complete microfilm: 61 reels

III.A. THE PUBLISHED WRITINGS

The Readex Microprint edition of the Collected Writings of Albert Einstein⁸ is the most complete edition available of the published writings. All articles are reproduced in the original language, as well as in English, French, and German translation (if one of these was not the original language); and selected translations into other languages. It is divided into 274 Scientific Writings, 307 General Writings, and 25 Selected Interviews, for a total of 607 items (not counting translations as separate items). Since its appearance Miss Dukas has uncovered about a dozen additional items, and a small number of errors of attribution, etc.

In addition, a large number of uncollected speeches, letters, statements, etc., on public questions, primarily on the problem of war, have appeared in the collection Einstein on Peace⁹; the German edition, Albert Einstein über den Frieden¹⁰ has independent value for the publication of German texts in the original language.

So far as is known, no manuscripts have survived for published papers before 1914. From that date on there is a fairly extensive, but by no means complete, collection of autograph manuscripts and typescripts of published papers, or photocopies of such manuscripts and typescripts.

A rough estimate of the extent of the published papers has been made, based upon counts of items in the published bibliographies where page numbers were listed; and upon inspection of the Readex edition where they were not. It indicates over 7,000 pages of material, about equally divided between scientific and non-scientific items. If anything, this estimate probably errs on the high side.

III.B. THE CORRESPONDENCE

The scientific correspondence, comprising almost 4,000 letters (a chronological breakdown is found on page 15) takes up 22 reels of microfilm; while the non-scientific correspondence occupies 29 $\frac{3}{4}$ reels. If we assume the letters to be of roughly equal average length in both categories, this would lead to an estimate of about 5400 non-scientific letters. Thus, the correspondence comprises almost 10,000 letters to and from Einstein.

So far, there have been four major publications of Einstein correspondence: the letters to Solovine,¹¹ the Born-Einstein correspondence,¹² the Sommerfeld-Einstein correspondence,¹³ and the Besso-Einstein letters.¹⁴ In addition, a number of Einstein letters have appeared in a book of letters on the early history of wave mechanics.¹⁵ Various biographies, and other books and articles, reproduce a small number of additional letters or excerpts from letters (see Bibliography). The above-named publications, especially the Einstein-Besso correspondence, have been greeted as a major contribution to the understanding of the development of modern physics, as well as of Einstein's career. For example, Boris Kuznetsov and A. Frenk, the Russian historians of science, have stated in their review of the Einstein-Besso correspondence¹⁶:

The correspondence of Einstein will undoubtedly occupy, in the eyes of succeeding generations, a place in the front rank of the scientific and literary heritage of the first half of our century. By its mixture of scientific thoughts (expounded spontaneously in their new-born form), of moral and political opinions, it gives a vivid image of one of the greatest geniuses of human culture.

Alfred Brunner, in a review of the Einstein-Sommerfeld correspondence in the Neue Zeuricher Zeitung,¹⁷ stated:

EINSTEIN'S SCIENTIFIC CORRESPONDENCE

Chronological Table

<u>Year</u>	<u>No. of Items</u>	<u>Year</u>	<u>No. of Items</u>
1901-6	15	1933	59
1907	17	1934	24
1908	31	1935	<u>72</u>
1909	31		155
1910	<u>16</u>		
	110	1936	86
		1937	61
1911	34	1938	96
1912	35	1939	76
1913	25	1940	<u>71</u>
1914	12		390
1915	<u>49</u>		
	155	1941	35
		1942	41
1916	54	1943	40
1917	74	1944	49
1918	121	1945	<u>55</u>
1919	91		220
1920	<u>156</u>		
	494	1946	84
		1947	45
1921	124	1948	84
1922	102	1949	101
1923	82	1950	<u>155</u>
1924	73		469
1925	<u>90</u>		
	471	1951	101
		1952	144
1926	145	1953	208
1927	106	1954	168
1928	79	1955	<u>43</u>
1929	127		664
1930	<u>137</u>		
	594		
1931	106		
1932	<u>118</u>		
	224		

3946 dated items
 + 5 Undated items
 3951

It is amazing that up until now there has been no edition of Einstein's letters, the letters of certainly the most important natural scientist of the century. The letters of great scientists are, like their original articles, cultural documents of the first order; they often take us more directly than works already corrected for publication, to the sources of new ideas, theories and discoveries; and can provide information about the difficulties, the errors that even the greatest minds are not spared; but also about the sensations of joy, of satisfaction when a great stroke succeeds.

Paul Forman, in his review of the Einstein-Sommerfeld letters,¹⁸ makes some comments which apply to the correspondence as a whole: he first notes the importance of correspondence during the period 1900-1930:

. . . social and technological developments had not yet proceeded so far as to short-circuit the written word. Exchange of letters was still a most important mechanism of interaction, and in this period was of unique frequency and intensity. . .

He goes on to say:

. . . insofar as intellectual history is the history of the intellectual, the correspondence here published is, as a whole, of those known to me, one of the best exemplifications of this point; that is, the correspondence of these two giants of conceptual development is one of the densest sources of information about scientific life in physics in the German academic world during the twenty-five years 1912-1937, and most especially during the crucial five years 1918-1922, from which over half the letters stem. . . .

But this book is more than an important addition to the literature and sources of the history of science. It is--or ought to be for every reader--an edifying vicarious experience of a man who is fully conscious of the inescapable ethical content of all social life and determined to face that situation not by reliance upon conventional models and consensual values, but rather by eliciting the true ethical implications of alternative courses of action. And that Einstein's foil here is a very decent man in the conventional sense, serves rather to sharpen than to blur this distinction.

Yet the four volumes of published correspondence include only about 450 letters, or less than 5% of the total. While not all of the correspondence can be expected to be of equal importance, it should be pointed out that there has been little or no publication of the correspondence with Niels Bohr, Elie Cartan, Paul and Tatiana Ehrenfest, Marcel Grossmann, David Hilbert, Jacob Laub, Paul Langevin, Max von Laue, H.A. Lorentz, Wolfgang Pauli, Max Planck, Hans Reichenbach, Erwin Schroedinger, Moritz Schlick, Hermann Weyl--to name only some of the scientists and philosophers with whom Einstein maintained an extensive correspondence which is in the Archive.

The publication of an annotated edition of the complete correspondence will finally make available the materials from which a more complete and detailed picture of Einstein's development and interaction with other scientists can emerge. It will also enable much more detailed study of his social role.

III.C. UNPUBLISHED MANUSCRIPTS

There is no catalogue yet of the non-scientific papers; but the Archive contains at most a handful of unpublished, non-scientific articles, since such articles were almost always written for a specific publication.

The Archive has autograph manuscripts of 33 complete or incomplete drafts of scientific papers which have, so far, not been identified as drafts of published articles. These date from 1911 to 1952, and number somewhat over 200 pages.

In addition, we know there exists a $72\frac{1}{2}$ page complete manuscript of a review article for the Handbuch der Radiologie, edited by Professor Erich Marx. This was written about 1912, but was not published because the volume in which it was to appear was delayed by the First World War, and Professor Einstein refused to allow its unrevised publication after the war. The projected revised version was apparently worked on by Dr. J. Grommer, at Professor Einstein's suggestion; but it is not known whether the version was ever completed. At any rate, it was never published. We now know who is holding the original manuscript, and efforts are being made to secure a copy. This is the only major unpublished work known to exist which is not in the Archive.

There are also a number of autograph notebooks kept by Professor Einstein. These include:

2 notebooks of lectures by Professor Weber at the ETH,¹⁹ dating from 1896 to 1900;

4 notebooks of notes for lectures by Professor Einstein at the University of Zürich dating from 1909-1911;

1 research notebook from Zürich dating from the same period;

2 notebooks of notes for lectures given at the University of Berlin,

one from 1914-1915, one from 1918-1919;

1 research notebook on unified field theory, probably from Berlin, 1928;

1 research notebook on unified field theory and general relativity, from Princeton, 1937;

1 pad containing his last notes, Princeton, 1955.

There is also a memo book from 1911-1914, containing scientific notes, personal memoranda, addresses, etc; and a memo pad used about 1930 during sessions of the League of Nations Committee on Intellectual Cooperation, with later scientific notes.

There are copies of eight notebooks kept by Walter Dällenbach, a student, of Einstein's lectures at the ETH between 1912-1914; and also four notebooks of notes kept by Walter Bloch, a student, of lectures in Berlin, 1916-1918.

There is a transcript of the stenogram made by Karl Korsch of a lecture on causality given by Einstein in Berlin in 1930.

There are seven travel diaries kept by Professor Einstein, which often contain scientific notes, as well as travel notes and notes on conversations:

1 for 1922-23 trip to Japan, Palestine and Spain

1 for March-May 1925 trip to South America

1 for November 1930-January 1931 trip to United States

1 for April-June 1931 trip to England

1 for December 1931-February 1932 trip to United States

1 for December 1932 stay in Pasadena, California

1 for January-February 1933 stay in Pasadena, California

There are also copies of two school essays and a set of three exercises in geometry of Einstein as a student at the Kantonschule of Aargau, Switzerland, for 1895-1896.

IV. SEARCH FOR ADDITIONAL MATERIAL

The Trustees have carried out an extensive search over the years since Einstein's death, which has resulted in a large volume of material being added to the Archive. This search will continue, based, as it has been, upon personal contacts, perusal of auction catalogues of rare manuscript dealers, advertisements, etc. Certain members of the Einstein family hold some private letters, and efforts are being made to secure copies for the Archive. There is also an effort being made to get a copy of the 72½ page manuscript mentioned in Section III.C.

However, it is felt that a systematic search of archives and libraries in this country and abroad should be made. A review of the National Union Catalogue of Manuscript Collections in the United States (NUCMUC)²⁰ has been made, and letters will be written to all libraries listing holdings of Einstein material asking for permission to examine those holdings. A preliminary list of archives and libraries in the United States, not listed in NUCMUC, but known to hold material of interest, and of such institutions outside the United States, has been prepared (see Appendix F) and similar requests to look at their holdings relating to Einstein will be made. The editorial staff, particularly the Editor and the Associate Editor, will spend considerable time during the period of this grant request on such visits. Support for two months of travel abroad to visit such sources is being requested during each of the first two years, and one month during each of the following years. One-half of this amount of travel time is being requested for similar domestic visits to archives.

The Editor has been in contact with the American Institute of Physics Center for the History of Physics (Dr. Spencer Weart and Ms. Joan Warnow), and will have their help in adding to the preliminary list, and receiving information from them on any new sources they may come across. He has also been in

contact with Dr. Bruce Wheaton, Project Director for the Inventory of Primary Sources for 20th Century Physics, sponsored by the National Endowment for the Humanities; Dr. Wheaton has promised to be on the lookout for, and keep us informed of, any Einstein material in the extensive archive survey they will be conducting.

The coming centennial of Einstein's birth in 1979 is likely to facilitate this search, since many institutions are known to be currently examining their archives to find Einstein material. For example, the Germany Academy of Sciences is planning to publish all of the materials they can find to document Einstein's relations with the German academic world. We are in contact with this project, and hope to receive copies of any new documents found.

In addition, a list of all major libraries, archives, etc. throughout the world will be compiled, and letters of inquiry will be sent to them requesting information on any holdings of interest of which they may be aware. It is anticipated that several thousand such letters may ultimately be sent.

It is also planned to insert notices or advertisements into a number of scholarly journals, newspapers and magazines, asking for information on Einstein material. A recent preliminary test of this method, by insertion of a notice in Nature, was rather disappointing. It yielded only two responses, both of which referred to material already in the Archive. However, further efforts will be made.

V. CURRENT ACCESSIBILITY TO SCHOLARS

As mentioned above (see Section III.A.), there exists an almost complete edition of the published papers of Einstein, the Readex edition, which is available in many libraries. In addition, there are three bibliographies of his published papers (see bibliography) which facilitate locating them in the original journals.

The published editions of the correspondence, as well as various collections of published and unpublished material, such as Einstein on Peace, mentioned above (see Bibliography for details) also are readily accessible.

As previously mentioned (see Section III above) the entire Archive has been microfilmed (except for the published papers), and the negative is stored in the Princeton University Library, along with one positive. Another positive is in the Library of the Institute for Advanced Study, and a third positive is housed in the Editor's office. As additional material is accumulated in the Archive, supplementary microfilms will be made and similarly deposited. The copy of the microfilm in the Princeton University Library has been made accessible to scholars by an agreement between the Library and the Trustees. The papers are divided into two major categories: scientific and non-scientific. Access to the scientific papers by responsible scholars is at the discretion of the Librarian or his deputy. Permission for photocopies of unpublished documents must be obtained from the Trustees, as well as authorization for the publication of such documents. A complete index to the collection is in preparation as part of the Project, and a copy will be made available to the Princeton University Library when it is ready.

VI. GENERAL PRINCIPLES AND PLANS FOR THE EDITION

The Editor is mandated to prepare a complete collection of the writings of Albert Einstein, to be published in a printed edition by the Princeton University Press. This edition is to include all published papers, scientific and non-scientific, all unpublished manuscripts, all correspondence by Professor Einstein; and as much of the correspondence to him as is deemed important for which permission can be secured to publish from the present legal owners of the rights. The only grounds on which material may be withheld from publication by the Trustees are reasons of privacy (see attached Statement of Trustees, Appendix D). Additional documentary materials, letters not to or from Einstein, but referring to him, excerpts from published or unpublished memoirs, dairies, etc., referring to Einstein, will also be included, if they serve to add important information about his life, activities and influence; or report conversations not otherwise recorded.

There will be a certain number of cases in which editorial judgment will have to be exercised as to what to include. For example, if several essentially similar letters of recommendation were written for the same person, one sample letter will be printed and a list of others appended. Similar questions will arise about routine correspondence with publishers, routine refusals of invitations, etc. These are already available to interested scholars on the microfilm. It is possible that they might also be reproduced on microfiche cards and included with the published volumes. No decision on this has yet been reached; but this problem will not arise during the first phase of our work on the Swiss years (see discussion of periods later in this Section).

In addition, there will be general introductions to various sections of the Writings, as well as introductory notes to some of the documents, which will

provide background information to aid in the understanding of the documents or refer to published sources of further information. Reference to individuals, places, incidents, etc., in the documents will also be annotated to facilitate their comprehension and will be extensively cross-indexed.

All material included in the Writings will be published in the original languages, while the introductory notes and other additional material will be published in English. There may have to be certain exceptions to this rule if the original language is not English, French or German: for example, a book recording the texts of certain of Einstein's lectures during his visit to Japan in 1922 was compiled by Dr. Jun Ishiwara (see Bibliography), his former student and the translator of the talks at the time they were given. As this record in Japanese of these talks is the only one available, and they are of some importance, it is planned to publish an English translation of them.

We plan to reprint published writings from the first published edition. Where a draft or drafts of articles exists, this will be indicated, and significant changes, omissions, etc., will also be indicated. If a German draft exists of a paper which was published originally in translation, we shall give the German text as well. Drafts differing in a major way from the final printed version will be reproduced in their entirety, or in the portions so differing. Although a certain number of photographs of original manuscripts will be reproduced in each volume, to give some feeling of the originals, all handwritten documents will be published in transcription, with notation of all words changed or crossed out, marginal annotations, etc. Einstein's handwriting is quite legible, and he did not use Gothic script; many of his correspondents wrote less legibly, and some (Schroedinger, for example) used the Gothic. In general, the manuscripts are in a good state of preservation. Miss Dukas, the Archivist of the collection, has had extensive experience in reading and transcribing these

documents, and will continue to work with and help train the Assistant Editor who will work on transcription.

We shall be working as far as possible from photoreproductions of the entire archive, currently being made from the microfilm negative, plus copies of the printed papers, consulting the original manuscripts when necessary. While a certain portion of the manuscript material has been transcribed in type-script by Miss Dukas, no accurate estimate of what fraction of the total is already transcribed has yet been made. It is probable that it is a good deal less than half. All of this transcribed material will have to be rechecked against the original manuscripts; and transcriptions of the remaining material made, and checked against the originals. Then we shall have to work out a system for preparing these transcriptions for publication, indicating changes, cancellations, additions, etc., by some standard method. In the work of establishing our text, we shall be mindful of the words of Whiteside in his Editorial Note to the Newton manuscript²¹:

An 'accurate' text is, of course, a literary fiction: such a text is perhaps that which best accords at any given time with current, contingent scholarly and typographical criteria of manuscript reproduction and can at best hope to set a standard for future scholarship. These criteria in turn are imbedded in our capacity to comprehend a sequence of irregularly patterned inkmarks absorbed not always legibly into a thickness of paper, and upon them we raise a complex structure of hypothesis which combines a not completely consistent mass of external documentary knowledge with our interpretative assessment of authorship and dating of handwriting, speed and sequence of composition and not least, the significance of cancellations. At a more sophisticated level we dare to restore fragmented phrases and amend syntactical inconsistencies and then seek to place each piece of text as a component in a higher-order structure of explanation, guessing at the previous existence of documents needed to fill gaps in our scheme, revising first interpretations as our knowledge of context widens and continuously checking our understanding against simplifying canons of logical consistency and historical reasonableness. Ineluctably, each stage of the editing process imposes its compromises on the naïve ideal of unaltered facsimile reproduction of the original manuscript filled out with pertinent objective comment.

Now we shall discuss some questions relating to the organization of the material for editing.

Einstein's career seems to fall into four major periods--each capable of further subdivision, of course:

1. Childhood and Early Schooling, 1879-1895
2. The Swiss Years, 1895-1914
3. The Berlin Years, 1914-1932
4. The Princeton Years, 1933-1955

We propose to edit the writings in accord with these major divisions. Further subdivision is possible if the large volume of material for the later periods suggests its advisability. In the next Section, we shall discuss period two in more detail, since we propose to edit the material from this period first.

The material in the archive falls basically into three categories: published papers and articles, together with drafts of these works; unpublished manuscripts; and the correspondence (see Sections III.A, B, C). It is possible to divide the published and unpublished papers into scientific and non-scientific ones fairly easily.

However, the correspondence is not so divisible. One and the same letter will often range over scientific, political, social and personal questions, and it hardly seems proper to chop up a letter into portions in order to fit them into one category or another--particularly since delimiting the boundaries of these categories would create a new set of problems were such a division seriously to be attempted. Neither would a mere count of the number of lines devoted to various topics--nor even a less subjective decision--seem a proper way to decide the major interest of a letter in order to classify it, particularly since the need for elaborate cross-references to all the other topics in the

letter would not thereby be avoided. Since any classification scheme will not be able to avoid the need for a number of indices, involving cross-referencing, it seems most appropriate on balance to choose the chronological order for the publication of the letters. This will have a number of advantages, as well as some drawbacks. Among the advantages are: the principle of classification is immediately accessible; the totality of issues occupying Einstein at any period of his life, in so far as they are reflected in the correspondence, will emerge clearly; varying discussions of the same issue with different persons in the same period of time will be available in close proximity. Some drawbacks: letters to the same person will be spread through a large number of volumes, as will letters on similar topics. On balance, it seems to the Editor that the advantages outweigh the drawbacks; and that the drawbacks can be sufficiently overcome by good indexing.

Once it has been decided that the correspondence should be arranged chronologically, there remains the problem of how to arrange the rest of the material. All papers and correspondence might be published chronologically in one series. Or they could be published in two or more series: for example scientific papers and manuscripts could be published chronologically in one series, followed by a series containing the non-scientific writings, and a third series containing the correspondence. A third possibility would be to have one series containing the scientific and non-scientific papers, published chronologically; and a second series consisting of the correspondence. This is a question about which the Editor has thought a great deal, and on which he has received much advice. It seems just the sort of question which the Editorial Committee should consider at its early meetings. However, on one point the Editor has a firm opinion. The editing process should treat all the material from a given period together, and the volumes for each period should appear

together. It seems very important that the editorial process reflect that unity in Einstein's work which has been discussed in the introduction. And since the editing process is projected to last something like a decade and a half, it seems important that scholars of this generation be given access to all material from a given period. Republication of the papers from the Swiss period, say, with annotations, might be substantially more useful to scholars than the Readex edition is; their availability together with the correspondence from that period, with cross-references, will be immeasurably more valuable.

In order to illustrate some of the issues that arise in dealing with the material, I shall discuss three sample cases: one involving purely scientific material; one "mixed" case where scientific and non-scientific material both are involved; and one involving only non-scientific material. No special significance should be attached to the choice of examples: they have just come to my attention recently in working with the archive. The examples will also illustrate some additional functions of members of the Editorial Committee and the need for Consulting Editors; as well as the importance of having an annotated edition of the published work, together with the unpublished manuscripts and correspondence.

The first example is the problem of the electromagnetic field--and in particular the electromagnetic stress--energy tensor--inside ponderable media. This was an old problem within Maxwell's theory of electromagnetism, and it was first treated from the viewpoint of special relativity by Minkowski in 1908.²² Shortly thereafter the subject was discussed in a paper by Einstein and Laub²³--Einstein's first collaborative effort. They came to conclusions differing from Minkowski's. Now the correspondence between Einstein and Laub has been partially preserved, and several letters bearing on this topic exist. They show that their

discussions of the issue continued after their paper was published, and they were by no means certain of their results. If the missing manuscript of the 1912 review paper by Einstein (see Section IIIC) can be recovered, it will be extremely interesting to see how Einstein treated this problem. In one letter of 1910 Einstein mentions that "a Japanese" has sent him a paper on the topic which is "the only work written on this topic so far which makes any sense [Hand und Fuss hat]."²⁴ The Japanese is surely Jun Ishiwara (or Ishihara), who wrote extensively on this and related topics in special relativity between 1910 and 1920.²⁵

The topic itself keeps coming up in the Einstein correspondence: one of Einstein's former students at the ETH Walter Dällenbach, with whom he stayed in touch, sent him an outline of his thesis in 1918, in which he arrived at Minkowski's results by a different method. Einstein replied that he had long known the Einstein-Laub paper was wrong, and that Dällenbach is certainly right. Yet, a few years later, on his trip to Japan in 1922-23 arranged by Ishiwara-- who had visited Europe from 1912 to 1914 and spent several months working with Einstein in Zürich--they discussed the problem extensively (as can be seen from Einstein's travel diary and a letter from Ishiwara) and even planned to write something together on it--a plan which was never realized.

Now this material must be fitted into the controversy in the physics literature over the topic, which has largely revolved around the differences between the Minkowski work mentioned above, which yielded a non-symmetric stress-energy tensor, and the work of Abraham,²⁶ which yielded a symmetric one. The discussion over these and various additional stress-energy tensors proposed from time to time has continued to this day. Yet no adequate historical review of the issues appears to have been written.²⁷ To show the full significance of the papers and correspondence to be published, it will thus be necessary to carry

out a study of this material. This may be done by the editors, or perhaps by a member of the Editorial Committee. Rather extensive annotation, with numerous references to contemporary literature, is contemplated for this material, perhaps with a short summary overview of the history of the problem.

The second case is the 1919 eclipse expedition, which resulted in the confirmation of Einstein's prediction of the deflection of starlight by the sun's gravitational field, and the events growing out of the expedition.

By the time Einstein had reached his final formulation of the general theory, about 1915, the first World War had embittered relations between German and English scientists to the point that direct scientific communication had largely broken down. Thus scientists in neutral countries such as Holland and Switzerland played a major role as "transmission belts" for whatever flow of scientific information took place across the battle lines. At this time de Sitter, the Dutch astronomer, started a correspondence with Einstein about his papers on general relativity.²⁸ Einstein discussed de Sitter's questions and criticisms of the general theory, particularly its cosmological extensions, on which Einstein was just starting to work. In addition to a number of new scientific contributions to the theory, de Sitter decided to write three major expository papers on the theory, which he sent to A.S. Eddington, then Secretary of the Royal Astronomical Society. The ultimate publication of these papers in the Monthly Notices of the Royal Astronomical Society,²⁹ after some initial hesitation, was the major source of information about the general theory available to English scientists during the war. In particular, by calling Eddington's attention to the revolutionary implications of the theory, it played a role in initiating the sequence of events which finally resulted in planning for an eclipse expedition in 1919--preparation for which began in war-time England. Since it was the publicity given to the results of the eclipse expedition which

led to Einstein's world-wide fame, it seems important to document the story of the English response to de Sitter when publishing the Einstein-de Sitter correspondence itself. Thus, a number of letters and documents by third persons will have to be examined, and reproduced or summarized in the annotation of the correspondence.

Some discussion of the eclipse expedition itself, and especially of the publicity given to the results, both within the scientific community and in the general press, will be needed if any sense is to be conveyed of the transformation in Einstein's role that it produced. A certain amount of documentation of press comments, letters to Einstein from readers of these accounts, etc., will probably have to be included. A canvass of the various explanations that have been offered then and since for the amazing extent and duration of the public reaction will have to be made. The reaction of scientists to this popular interest in Einstein will also have to be examined. The growth of the anti-Einstein movement among German savants, with its distinctly anti-Semitic and right-wing political overtones will need to be studied.³⁰ Full appreciation of the significance of this topic will thus require supplementation of material in the archive by rather extensive documentation from other sources. This may well prove a topic which we shall want to ask a historian to look into.

The third case to be discussed is that of Einstein's relationship with the Zionist movement, which has not yet been thoroughly explored. In Prague in 1912, Einstein seems to have been in contact with an early Zionist cultural circle,³¹ but not to have been especially attracted to it. It was only after his move to Berlin that he became aware of the importance of the Jewish question. It was his encounters with Kurt Blumenfeld in early 1919 which brought him into close contact with the Zionist movement. Blumenfeld, who remained in

contact with Einstein until the end of Einstein's life, has written several accounts of their relationship and of Einstein's relationship with the Zionist movement.³² From these accounts, it is clear that this relationship was an intimate but complex one. Blumenfeld says³³:

He [Einstein] supported our cause for 35 years and was a Zionist, as far as it accorded with his nature [seinem Wesen entsprach] From 1921 until 1933 he carried out a whole series of very important tasks like a disciplined Zionist, which could have only been carried out in this form by him. But each time he had to be convinced that the action in which he was to participate was reasonable, and that he was needed in the given instance. . . . There were limits to his Zionism, which were determined by his nature [Wessen].

One would like to further document many of Einstein's interventions for the Zionist cause-and his refusals in certain cases.

There exist a large number of published texts by Einstein on Zionism and the Jewish question generally, on Israel and the prospects for peace in the Mideast.³⁴ It is clear from these texts that his views on certain aspects of these problems changed. For example, at certain periods he favored the creation of a binational state, while later he strongly supported the establishment of the state of Israel. There also exists much correspondence between Einstein and prominent figures in the Zionist movement, such as Blumenfeld, Weizmann, and Samuel; and we have Einstein's travel diary of his trip to Palestine in 1923. It would seem important to supplement this material with a search of the archives of the Zionist movement for references to Einstein's role by other persons; as well as by a study of the large secondary literature on this question.³⁵

In general, there will be cases, such as those just discussed, where either because of the intrinsic scientific complications of an issue, or because of the broader historical significance of events which have not already

been well-documented, where extensive preliminary work will have to be done and rather detailed annotation seems in order. In other cases, the preliminary work has already been done, and the editors will merely have to familiarize themselves with this material and briefly summarize it in their annotations, with references to more detailed studies. The work on Lorentz' and Poincare's contributions to relativistic electrodynamics, for example, comes to mind. In still other cases, the subject may have been well studied and be of lesser significance, so that references to the literature alone may suffice.

Where extensive preliminary work is needed, the Editors may do it themselves, or be able to call upon members of the Editorial Committee. In cases where none of these persons have the requisite expertise, we shall have to go outside this group for advice. On many smaller questions it may suffice to consult with an individual scholar by telephone or brief visit. However, as discussed above, there are a certain number of topics which have not yet received enough scholarly attention, yet the exploration of which will be important for the success of the editorial work. In such cases, scholars with the requisite background will be invited to spend a semester working on the topic in question, as Consulting Editors.

It should be emphasized that what is contemplated is not the "farming out" of the editing of sections of the material to these editors. The permanent editorial staff will supervise and take full final responsibility for the editing of all material. The Consulting Editors will be encouraged to independently publish suitable versions of the results of their work, in addition to making it available to the editors for use in editing the Complete Writings.

We can give some further idea of the level of annotation at which we are aiming by discussing some existing editions of Einstein's writings: the

Einstein on Peace volume, and the four volumes of correspondence (see Bibliography and Section V for a discussion of these). The Solovine letters include a photoreproduction of Einstein's letters to Solovine with a French translation. Solovine's letters are not included. There is no annotation at all, although there is a valuable introduction discussing Solovine's early friendship with Einstein. The Born correspondence contains the Briefwechsel, with annotations by Born himself, as well as a running commentary on the correspondence. This has the charm of personal recollections, as well as the advantage of personal insight into the significance of certain allusions; but is not a serious historical annotation (see review by Paul Forman).³⁶ The Sommerfeld and Besso Briefwechsel were edited by historians of science, Armin Hermann and Pierre Speziali, respectively. Both print the correspondence chronologically. Speziali divides the correspondence into three periods, with no introductory commentary. Hermann subdivides the much smaller number of letters, covering a shorter span of time, into seven periods, and introduces each with a commentary. Speziali, however, prefaces his volume with a long introduction in which he discusses Besso's life, as well as a number of the themes developed in the correspondence. Both give a fairly extensive annotation of the letters, Speziali's tending to be more detailed and ranging farther afield. Although he had technical scientific help, it must be said that the only unsatisfactory feature of the Speziali edition lies in some of the scientific annotations.

The Nathan-Norden edition of the Einstein writings on public issues contains introductory notes on practically all the documents, as well as annotations, explaining many obscure references to people and events, and bibliographical indications, as well as a valuable introduction.

We hope to achieve a level of annotation somewhat along the lines of the Speziali, Hermann, and Nathan-Norden editions. Naturally, the larger scope of this edition will provide opportunity for more general discussions covering extended periods or topics; and we hope to take advantage of this opportunity to acquaint the reader with the state of existing scholarship on the issues involved. But where controversies still exist, we shall try to present a summary of various viewpoints, if important to the understanding or interpretation of the documents, or at least references to the literature from which the interested reader can acquaint him/herself with the issues. We shall try to avoid undue editorializing, preferring to let the documents speak for themselves--or rather, providing the background material which will enable the reader to form his/her judgment as to their significance.

We have started to look over other editions of the collected writings of various eminent figures, scientific and non-scientific, to get some guidance on this question. While no figure is exactly comparable to Einstein--nor any collected edition exactly comparable to any other, for that matter--it became clear that there is a wide range of variation in the extent of editorial comment and annotation, ranging from editions of "The Scientific Papers of X" which do no more than reprint--or photocopy--the papers as printed, perhaps with an introduction and bibliography, to those editions where up to one-half of the volume consists of editorial matter. We hope to follow a course avoiding bare reproduction of texts on the one hand and the imposition of an interpretation of the material on the other. Our aim will always be to keep in mind the scholarly reader anxious to deal with the writings themselves, but grateful for reasonable guidance through the intellectual museum they form by those who have been taking care of the collection--so long as the guides do not become tiresome and distract attention from the exhibits themselves.

VII. PERSONNEL

It is anticipated that the staff of the Project will ultimately include: The Editor, an Associate Editor, two Assistant Editors, and the Archivist, as well as several consulting editors from time to time. In addition, there will be two secretaries and several student assistants. In a small organization assembled for a single purpose the "Table of Organization" will almost certainly require modification in the light of the individuals attracted to the project, as well as of changing requirements. The descriptions that follow express our current thinking and are the result of intensive studies and discussions during the past several months, but should not be taken as an immutable blueprint. The function of each of the staff members is presently envisioned as follows:

Editor: coordination of the entire project and ultimately responsibility for decisions about the project; primary responsibility for editing those aspects of the material concerned with scientific and philosophical problems; share in writing of editorial notes and annotations; setting up indexing system and initiating search for new material.

Associate Editor: assume major share of the decision-making about the Project as a whole; primary responsibility for editing those aspects of the material concerned with historical and social problems; primary responsibility for the search for additional material not in archives; share in writing of editorial notes and annotation.

Assistant Editor: primary responsibility for cataloguing of material, the indexing system, and continual indexing of new material; supervise transcription of handwritten materials, share in writing of editorial notes and annotations, supervise preparation of index for the volumes.

Assistant Editor: transcription of handwritten materials in form suitable for editing, checking of transcripts against original manuscripts, management of office, checking accuracy of edited copy against original documents.

Archivist: the Project is in a uniquely favorable position in that Miss Helen Dukas, Secretary to Professor Einstein from 1928 until his death, and who has served as Archivist of the Einstein Papers since then, has agreed to continue in this post and cooperate in the preparation of the edition. Her personal knowledge of the papers, as well as many of the people and incidents involved in Einstein's career, has proved and will continue to prove invaluable. She will work closely with the Assistant Editor in the transcription of the manuscripts.

Consulting Editors: from time to time, it is planned to invite scholars with expertise in certain areas to work on particular aspects of the papers where it is felt that sufficient research has not been done. This will both stimulate work in these areas for its own sake, as well as help to prepare the ground for editing this material.

In addition, Professor Valentine Bargmann, Professor Emeritus of Mathematical Physics at Princeton University, a co-worker of Professor Einstein's for a number of years, and a member of the Editorial Advisory Board, has expressed the desire to work part-time on the Project. It is expected that his scientific expertise, language skills, and familiarity with Professor Einstein and his milieu will substantially benefit the Project.

VII.A. THE EDITOR (see attached vita)

Dr. John Stachel was educated at the City College of New York and Stevens Institute of Technology. He has worked at Lehigh University, University of Pittsburgh, and Boston University, where he currently is a Professor of Physics and Director of the Institute of Relativity Studies. He is on leave for the remainder of the current and next academic year from Boston University to work on the Einstein Project and holds a Visiting Senior Research Fellowship in the Physics Department of Princeton University.

Dr. Stachel's training was in theoretical physics; he completed his doctorate on the Cauchy Problem in the General Theory of Relativity at Stevens in 1961. Since then, he has worked mainly in the field of general relativity, publishing a number of articles in this field (see Vita). He has also done work in the field of philosophy of science, largely as a result of his association with the Boston University Center for the Philosophy and History of Science (see Appendix G, Vita)

Dr. Stachel is also interested in the wider social relations of contemporary science and has taught a course on "Modern Physics and Current Political Problems" for several years at Boston University.

He has done wide reading on the history of relativity theory and the development of modern physics generally, as well as on the career of Albert Einstein. This work resulted in his offering a course on "Albert Einstein: The Man, the Times, the Achievement" at Boston University for the first time last year. He has also commented on a number of papers about Einstein's work at the Boston Colloquium for the Philosophy of Science.

He has a good reading knowledge of German and French, particularly in scientific, philosophical and social subjects; but he is weaker in the spoken languages. He has had some experience in editing translations from both

German and French. He also has a much weaker knowledge of Italian and Spanish.

Dr. Stachel has had experience in organizing both large and small scientific conferences, including two smaller ones (about thirty participants each) sponsored by the Institute of Relativity Studies on "Gravitation and Quantization," and "Absolute and Relational Theories of Space and Space-time"; and had the major responsibility for organizing the Eighth Texas Symposium on Relativistic Astrophysics (850 participants) held in Boston last December. He is currently organizing a session of the 1978 AAAS meeting for Section L on Topics in the History of General Relativity.

He has had some editorial experience, starting as a graduate student when he edited the notes of Professor C. Møller's lectures at the Brandeis summer school for publication. He also helped edit the proceedings of the Conference on Relativistic Theories of Gravitation held at Jablonna in 1972, and the proceedings of the aforementioned conference on "Absolute and Relational Theories of Space and Space-Time." He helped edit the Festschrift for Dirk Struik on the occasion of his eightieth birthday, and has just finished editing, with Professor Robert S. Cohen, the posthumous collection of the papers of Leon Rosenfeld. (See Vita for detailed references.)

Dr. Stachel has not had any previous editorial experience on a project of the magnitude of the Einstein Papers. Therefore he has been visiting other projects such as the Wilson Papers, the Jefferson Papers, and the Joseph Henry Papers, and talking with archivists such as those at the National Historical Publications and Records Commission and the American Institute of Physics Center for the History of Physics, to get more expert advice. He has also been accepted for the two-week summer school for historical editors being held this

June by the National Historical Publications and Records Commission at the University of South Carolina. He expects to continue his on-the-job training over the next few years.

He is currently Principal Investigator on a Grant from the National Science Foundation, SOC 75-20179 entitled "Quantum Logical Approaches to the Interpretation of Quantum Mechanics: Their Relation to Logical Theory, Space-Time Structures and Quantization of the Gravitational Field," to expire September 1, 1977. He is drawing no salary from this grant this year. He is also Co-investigator on a Grant from the Cooperative Science Program in Latin America of the National Science Foundation, INT 76-05769, expiring October 31, 1977. He draws no salary from this grant.

VII.B. ASSOCIATE EDITOR

Since the training and background of the Editor have been primarily in the fields of theoretical physics and philosophy of science, especially relativity theory and the foundations of quantum mechanics, it is desired that the Associate Editor have training and experience primarily in history of science. It would be especially helpful if that experience were in late nineteenth and early twentieth century science, both its internal and external aspects, and included work with German language materials. It is also desired to find someone at a senior level, so that major overall responsibility could be shared with the Editor. People with all these qualifications are not easy to find, nor are they usually uncommitted to other work, so that it may ultimately be necessary to compromise on some of these qualifications. Just to give an idea of the type of person being sought, we are looking for someone of the caliber of Paul Forman, Martin Klein, and Russell McCormach. However, it may well turn out that we shall have to turn to someone considerably less senior, or look outside the United States. A number of historians of science have been asked to suggest names, and Professor Roger Stuewer, Secretary of the History of Science Society, has agreed to assist with the search.

VII.C. ASSISTANT EDITOR

Since the Editor has not had previous experience on a large editing project, nor is it anticipated that the Associate Editor will have, we should like to have an Assistant Editor who has had such experience as a major part of his/her background, and who would therefore be able to supply expertise with the "nuts and bolts" aspects of such a project. It is anticipated that such a

person would be of relatively junior status. We have been in contact with the National Historical Publications and Records Commission, which maintains a roster of persons looking for such positions, and hope to find someone with their help.

VII.D. ASSISTANT EDITOR

Although the person taking this job may not necessarily have an academic background, it will be a position requiring very special qualifications. The person will assume major responsibility for the transcription of the German language handwritten documents, and later on for the checking of the final typescript against the originals, etc. Thus, we shall need a person who is completely bilingual, preferably with a German and English education, sensitive to cultural nuances in German, with good secretarial skills and experience in the preparation of manuscripts for publication. As it is also anticipated that this person will take charge of day-to-day operations of the office, experience in office management will be desirable. We have several candidates for the job already. The vita of Mrs. Brigitte Hirschfeld, a candidate who meets the qualifications, is included as Appendix H. Mrs. Hirschfeld has expressed a willingness to work on the Project when and if funding is available.

VIII. PLAN OF WORK FOR GRANT REQUEST PERIOD (Five Years)

During the period of this grant request, we expect to complete a number of the aspects of the preliminary work, some already under way, as well as to begin the actual editing. More specifically:

1. cataloguing and indexing of the present collection to be completed;
2. living correspondents to be contacted and asked for information;
3. transcription of handwritten materials for period two to be finished, probably also for period three;
4. contacting of libraries and archives to be finished;
5. visits to libraries and archives holding material for period two to be finished, other visits to be underway;
6. editing of material for period two to be finished; editing of later periods to be underway.

Before discussing these points in greater detail, it should be pointed out that many of these activities will be carried out in parallel. Transcriptions of manuscripts and preliminary work on editing some of the material can begin, for example, before all the preparatory work on cataloguing, indexing, etc., has been completed.

The first three listed items are all of high time priority. Without some sort of complete catalogue of the collection, it is very difficult to do anything else. Therefore we expect to complete the preliminary card catalogue to the entire collection, based upon Xerox copies of Miss Dukas' typewritten descriptive notes for each item, this summer. Mr. Peter Galison, who has just graduated from Harvard's History of Science Program will be working on this project full-time for three months this summer. Mr. Galison has completed a Senior Thesis on "Minkowski's Space-Time" (see Bibliography), based on extensive work on the Minkowski collection in Göttingen, which has given him some familiarity with the problems of working with archival material.

This cataloguing will give us enough information, for example, to make an accurate count of the total number of items from each period, as well as a breakdown into the various categories. A count of the total number of pages of material in each period will also be possible. Based on this information, a rough breakdown of the entire collection into volumes will be possible, and the entire set of duplicate copies of the archive can be organized and filed in accordance with this breakdown. At the same time, we shall be checking the quality of each duplicate, and making reproductions from the original where the microfilm copy is defective. Thus, we should have, within about one year, a complete duplicate file of the archive, organized chronologically and roughly by projected volume.

This preliminary index, although enough to enable us to get started on a number of aspects of the project, is clearly going to be insufficient as a working index for the collection. Therefore we are planning a computerized indexing procedure for all documents in the collection. It is expected that each document will be indexed by category, date, and subjects mentioned. A preliminary study of how to go about the indexing has been completed by Robert Stachel, a Computer Science senior student at Brandeis University with an extensive background in computer programming (see Appendix I). He will work on setting up the indexing system for three months this summer, in consultation with staff members of the Princeton University Computing Center. We expect to complete the initial work this summer. It is expected that a flexible system of categories capable of expansion will be worked out, and the program developed for the system. It is anticipated that computer print-outs will serve the function normally served by card indices. Once the system has been designed and perfected, we expect to continue cataloguing and indexing the documents over the next couple of years. By standards such as that of the Joseph Henry Papers, the only other similar project known to us to be using computerized indexing, our collection is

small; so we hope to finish cataloguing and indexing the present collection within the next two to three years. After that we shall have only the minimal problem of entering new material. The Assistant Editor with historical editing experience will be in charge of this aspect of the project. It is expected that the system will be simple enough to operate, so that much of the actual work of entering items into the index can be done by student assistants and volunteers.

Another item where time is vital is the contacting of living correspondents. A list of the living correspondents of Einstein is being compiled, and already contains about fifty names. These people are being contacted, and asked for their help in the annotation of the correspondence; as well as for additional reminiscences that they may wish to contribute. When agreement is received, a complete copy of the correspondence is sent to the person, with a list of specific requests for comments on particular aspects of the letters, compiled by the Editor. A number of such letters have been sent, and several detailed replies already received. It is anticipated that a more detailed study of the list of correspondents, which will emerge from the index project, will enable a large number of additional names to be added to the list of living correspondents. It is expected that this project will be completed within the next two years. Urgency has impressed itself upon us: three of our "living" correspondents have died already, and a number are of advanced years.³⁷ The Editor has assumed responsibility for this project so far, and probably will continue to do so.

It is also important to have the Assistant Editor for transcription begin working with Miss Dukas as soon as possible on the transcription of manuscripts. Not only can much be learned from Miss Dukas about the technical side of the decipherment of the handwritings of various correspondents; but even more importantly, she has a wealth of information stored in her head about many of

these documents, and incidents connected with them. It is expected that every effort will be made to include notes of this material with the documents themselves, where appropriate, or in a special file if the information is more general. It is expected that this work will continue for several years--perhaps the length of this grant application period. Priority will again be given to the early manuscripts needed for editing the writings of the first period.

We hope to be able to complete the major part of our search for new material within the period of this grant proposal. We shall complete our broadcast written enquiry to library and archives, and our insertion of notices and advertisements within about one year.

In the meanwhile, we have already compiled a list of archives that have material that should be examined, and we expect to start visiting a number of these even while the written search is still going on. This preliminary list of such archives, etc., is appended. It is expected that two months of foreign travel will be needed for this part of the search, with perhaps half that amount of domestic travel, in each of the first two years of this proposal; about half as much is contemplated for the remaining years. The Associate Editor will be in charge of this aspect of the project, although the Editor and Assistant Editor will take part in the actual search. We shall naturally coordinate search travel with other necessary travel plans to the extent possible. Since it is planned to publish Einstein's work chronologically, we shall give priority--but not exclusivity--during the early years to visiting those sources likely to yield material needed for the years in Switzerland.

Finally, we expect to begin and complete work on the editing of the material from the second period into which we divided Einstein's career above: the Swiss Years, 1895-1914. This period can be subdivided into:

- a. student years at the ETH, 1896-1900;
- b. years at the Patent Office, 1902-1908;
- c. early academic career in Bern, Zürich, Prague, 1908-1914.

This was the period in which Einstein laid the foundations of his work in a number of fields, and developed an approach and style of his own, which were to characterize his entire scientific career. His involvement with the philosophical and epistemological considerations so intimately associated with his concerns in theoretical physics; his search to grasp the essence of physical problems rather than deal with a mass of detailed data; his mastery of the foundations of statistical reasoning; his feeling of profound unease with the bases of classical physics and sense of the need for introducing radically new concepts to solve the problems with which theoretical physics was confronted; his attempt to bring together the foundations of mechanics and of Maxwell's theory, which led to the special theory of relativity; his attempts to extend this theory to the realm of gravitation which led him to the general theory of relativity: all of these themes of his life-work are to be first found in this period.

Most of the work that has been done so far by historians of science on Einstein's development, and on the development of his work,³⁸ has been concentrated on this period. In addition, there has been a growing number of studies of the growth of the German physics community, of the development of national styles in science, on the reception of the theory of relativity in various countries, on the early history of the quantum theory, which will be of great help in the preparation of the editorial material for the volumes covering this period. Thus, there is already in existence a large literature on which the editors of the Collected Works can draw for the preparation of introductory material and annotation of the works of this period.³⁹ The work of this period

is also simpler to handle for another reason. Although Einstein's renown within the scientific community grew tremendously within this period--indeed the documentation of the rise from obscurity of the patent clerk of 1905 to the Academician of 1914 will form one of the leitmotifs of this section of the Works--still, this renown was by and large confined to the scientific community, and in this respect Einstein's career was still comparable to that of several other physicists of eminence. It was only after the First World War and the enormous publicity given to the results of the eclipse expedition, confirming Einstein's prediction of the deflection of light by the sun's gravitational field, that Einstein the public figure--and the myth--started to develop. Thus, the problems presented by materials from the first period will be more similar to those presented by the papers of other scientists than can be expected to be the case for later periods. Of course, in view of the later developments, it will be important to point out signs indicating the future course of events where they occur. For example, Einstein's relationship with Friedrich Adler as fellow student and then as a professor assumes special significance in view of the later efforts by Einstein to help Adler after the latter was sentenced to death for the assassination of the Austrian Prime Minister in 1916.

It is proposed during the next three to five years, while completing the necessary work on the whole archive discussed above, to concentrate on editing the material from the first period for publication. A fair amount of material on the history of the Einstein family, and on Einstein's student years exists, but it is proposed to postpone publication of this material from period one until later, in order to concentrate on the material from the ETH days onward, which can be presumed to be of interest to a much larger body of scholars.

What material exists from this period?

1. There are 58 published scientific papers from the period 1901-1913, comprising about 650 pages. There is, as noted, an unpublished paper, of which a manuscript is known to exist: a review article on special relativity prepared about 1912 for the Handbuch der Radiologie, but never published. Efforts to secure a copy of this manuscript are still under way. There are no other manuscripts for these early papers known to be in existence. At that time, Einstein usually discarded the manuscript after publication. The papers range over the subjects of statistical mechanics, quantum theory, the special theory of relativity, and early attempts at a relativistic theory of gravitation. There are no known non-scientific papers from this period.

2. There are seven notebooks from Zurich, dating from 1896 to 1911. Of these, 2 are student notebooks of Weber's lectures on physics at the ETH between 1896 and 1900. Four appear to be lecture notebooks prepared for courses given by Einstein from 1909-1900 at Zurich University; and 1 a research notebook dating from 1909-1911. There is also a pocket memorandum book, dating from 1911-1914, containing scientific and personal notes, memoranda of appointments, etc.

3. There are photocopies of eight notebooks kept by Walter Dällenbach, a student of Einstein's at the ETH between 1912-1914, covering Einstein's lectures on:

1. Analytical Mechanics	180 pages
2. Analytical Mechanics and Mechanics of Continua	180 pages
3. Physics Seminar	130 pages
4. Thermodynamics	180 pages
5. Statistical Mechanics	100 pages
6. Electricity and Magnetism	180 pages
7. Theory of Relativity	<u>90 pages</u>

total 1040 pages

4. There are 204 letters in the scientific correspondence; if we accept the estimate that was made above of the ratio of non-scientific to scientific letters as applicable to this period, there should be about 270 non-scientific letters, for a total of almost 500.

5. In addition, there are a number of biographical reminiscences by friends and acquaintances of the period. Some of these may be included in the collected works, others summarized or excerpted, and all known to us will be listed in the bibliography of the Writings.

6. Since the documentation for this early period is comparatively scarce, and so important, a special attempt to locate documents and letters referring to Einstein from this period will also be made; and some of these may also be included in the published edition.

It is anticipated that this material will comprise at least two volumes of the total, and that both can be completed within five years.

We would expect to begin some preliminary work on editing of material from the later periods even during this grant period. For example, it will be necessary to refer forward to certain later letters and papers in discussing earlier ones. The indexing system should make this possible at a fairly early stage of the project, well before completion of the editing of the material for period two.

After the experience gained in the work of this grant period, and with the preliminary work for the remainder of the project completed--indexing of collection, search, transcription, decisions on editorial style, annotation style, and indices--it is expected that the remaining volumes of the edition can be edited at a rate of one to two volumes per year.

If this estimate proves accurate, the entire edition will be completed in about fifteen years. If the budget figures for the grant period are extrapolated over this period, with the same inflation figure, this leads to an estimate of about \$5 million for the total cost of the editing project.

NOTES

1. As Melba Phillips has put it [review of Einstein: The Life and Times, by Ronald W. Clark, Science and Society, 37 (1973), pp. 94-98.]:

Einstein was creative in a unique way. This statement is probably appropriate to every great man, but Einstein's insights and contributions are more nearly analogous to those of Shakespeare than to those of many scientists: he was not so much inventive as profound.

2. To quote from the Diary of Count Kessler [Harry Kessler, In the Twenties: The Diaries of Harry Kessler (New York: Holt, Rinehart, and Winston, 1971)]:

I talked for quite a while to Albert Einstein at a banker's jubilee banquet where we both felt rather out of place. In reply to my question what problem he was working on now, he said he was engaged in thinking. Giving thought to any scientific proposition almost invariably brought progress with it. For, without exception, every scientific proposition was wrong. That was due to human inadequacy of thought and inability to comprehend nature, so that every abstract formulation about it was always inconsistent somewhere. Therefore, every time he checked a scientific proposition his previous acceptance of it broke down and led to a new, more precise formulation. This was again inconsistent in some respects, and consequently resulted in fresh formulations, and so on indefinitely.

3. To quote Nathan and Norden [Otto Nathan and Heinz Norden, eds., Einstein on Peace (New York: Schocken Books, 1968), pp. 1-2]:

. . . although Einstein was a pacifist before his arrival in Berlin, he had never, so far as is known, translated these sentiments into any form of organized protest. He had taken no stand on public issues, nor had he been engaged in civic affairs or political actions . . . The experience of the war was to change his life; not that his scientific work did not remain the very center of his existence, but in the sense that it was to make him a conscious citizen of the world

4. After all, it was in 1931 that Einstein, addressing several hundred students at Cal Tech said (Nathan and Norden, Ibid, p. 122):

. . . I could sing a hymn of praise about the progress made in the field of applied science; and, no doubt, you yourselves will promise further progress during your lifetime. I could speak in such terms since this is the century of applied science, and America is its fatherland. But I do not want to use such language. . . Why does applied science, which is so magnificent, saves work and makes life easier, bring us so little happiness? The simple answer is that we have not yet learned to make proper use of it.

In times of war, applied science has given men the means to poison and mutilate one another. In times of peace, science has made our

lives hurried and uncertain. Instead of liberating us from much of the monotonous work that has to be done, it has enslaved men to machines; men who work long, wearisome hours mostly without joy in their labor and with the continual fear of losing their pitiful income.

Your may feel that this old man before you is singing an ugly song. I do it, however, for the purpose of making some suggestions to you. If you want your life's work to be useful to mankind, it is not enough that you understand applied science as such. Concern for man himself must always constitute the chief objective of all technological effort, concern for the big, unsolved problems of how to organize human work and the distribution of commodities in such a manner as to assure that the results of our scientific thinking may be a blessing to mankind, and not a curse.

Never forget this when you are pondering over your diagrams and equations!

5. Martin Klein has noted [in review of Clark, op. cit., Science 174 (1971), p. 1315]:
Einstein has not yet found his proper biographer, but perhaps it is too soon to expect one. The great bulk of his correspondence is still unstudied. His scientific development awaits the detailed and thorough analysis it requires. Only when these fundamental scholarly tasks are completed can the biographer go to work. Let us hope that Einstein will not have to wait as long as Newton.
6. This division of material in the archive will not be fully reflected in the published edition. For example, the Correspondence will be published chronologically. For a discussion of the reasons for this decision, see Section VI.
7. Gratitude is expressed to Dr. Nathan Reingold for showing us the system used by the Joseph Henry Papers, and for making available a written description of the system by James M. Hobbins.
8. A. Einstein. Collected Writings. (New York: Readex Microprint Corporation, 1960).
9. Nathan and Norden, op. cit.
10. O. Nathan and A. Norden, eds. Albert Einstein über den Frieden: Weltordnung oder Weltuntergang? (Bern: Herbert Lang & Cie, 1975).
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17. Albred Brunner, review of Einstein-Sommerfeld Briefwechsel, in Neue Zuercher Zeitung (24 Mai 1969), pp. 73-74.
18. Paul Forman, review of Einstein-Sommerfeld Briefwechsel, in Isis, 61:2:207 (1970), pp. 287-288.
19. The Eidgenössische Polytechnische Hochschule, or Federal Polytechnic in Zürich.
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22. H. Minkowski, Gott. Nachr. Math. Phys. Kl. (1908), pp. 53-111.
23. A. Einstein and J. Laub, Ann. Phys., 4 (1908), pp. 532-40; 541-550.
24. Letter of A. Einstein to J. Laub, November 4, 1910.
25. Shortly after, in 1912, Ishiwara wrote a major review article in the Jahrbuch der Radiaktivität und Elektronik, 2, pp. 560-648, on special relativity. This was the journal for which Einstein had written an earlier review of the subject in 1907; it was edited by Johannes Stark, with whom Einstein was still on good terms (see Einstein-Stark Correspondence in Bibliography). We are trying to find evidence of how Ishiwara came to be invited to write this review, and in particular whether Einstein's high opinion of him played a role.
26. M. Abraham, R.C. Circ. Mat. Palermo, 28 (1909), 1, and 30 (1910), 33.
27. Møller in his textbook [C. Møller, Theory of Relativity, 2nd ed. (Oxford: Clarendon Press, 1972) Chapter 7] has some brief but valuable notes on the history of the controversy.
28. This correspondence has been discussed by Carla Kahn and Fritz Kahn [Nature, 257, (1975), p. 451], who found the papers in the archives of the Sterrewacht in Leyden, after their possible presence there was suggested by Miss Dukas.
29. W. de Sitter, Monthly Notices of the Royal Astronomical Society, 76 (1916), p. 699; 77 (1916), p. 155; 78 (1917), p. 3.
30. See Frank's biography of Einstein, especially the German edition, for a discussion of this social background. P. Frank, Einstein: Sein Leben und seine Zeit (München-Leipzig-Freiburg: Paul List Verlag, 1949).

31. In a letter to Born, Einstein speaks of "small circle there [in Prague] of philosophical and Zionist enthusiasts, which was loosely grouped around the university philosophers, a medieval-like band of unworldly people. . ." Born-Einstein Letters, p. 4 (letter of 8 September 1916).
32. See the references to Blumenfeld in the Bibliography, as well as his essay, in Helle Zeit-Dunkle Zeit, C. Seelig, ed. (Zurich-Stuttgart-Wien: Europa Verlag, 1956). Europa Verlag, 1956).
33. K. Blumenfeld, ibid., p. 134.
34. There is one collection of earlier ones: A. Einstein, About Zionism: Speeches and Letters (New York: The MacMillan Company, 1931). Additional material will be found collected in Mein Weltbild; its English version: The World as I see It [but note that the contents vary somewhat]; Out of my Later Years; Ideas and Opinions; Einstein on Peace.
35. See Palestine and Zionism, A Cumulative Author, Title and Subject Index to Books, Pamphlets and Periodicals (New York: Zionist Archives and Libraries of the Palestine Foundation Fund, 1946-1958).
36. Paul Forman, review of Born-Einstein Letters, in Isis, 61:4:205 (1970), pp. 553-555.
37. Among the more important living scientific correspondents so far discovered are:
- Walter Dällenbach (Einstein's ETH student of 1912)
 - Louis de Broglie
 - Pascual Jordan
 - Karl Menger
 - Karl Popper
 - J.L. Synge
- Work on the non-scientific correspondents has been held up by the lack of a complete list, which will become available as part of the indexing project.
38. A number of studies in recent years by Gerald Holton, Martin Klein, Russell McCormmach, Tetu Hirose and others have discussed Einstein's work during this period and detailed their unity. See Section III.C of the Bibliography for references.
39. See, in addition to works mentioned in the previous note, those by Stanley Goldberg, Lewis Pyenson, Forman, Heilbron and Weart, Armin Hermann, Brigitte Schroder, as mentioned in the Bibliography.

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This list does not pretend to completeness, nor even to inclusion of all material of importance. It represents the present stage of an attempt to compile a working bibliography, and assemble a working library for the Project. It is based upon the personal collections of the Editor and the Archivist; and has been supplemented by a review of the Isis critical bibliographies. The three-volume index to the first 90 critical bibliographies was used for this period [Magda Whitrow, ed., Isis Cumulative Bibliography: A bibliography of the history of science formed from Isis Critical Bibliographies, 1-90. (London: Mansell)], and then each subsequent critical bibliography was reviewed for relevant items. In addition, a number of well-known scholars working on Einstein or related topics, such as Russell McCormach, Paul Forman, Lewis Pyenson, Brigitte Schroeder, Gerald Holton, Martin Klein, etc., have been asked to contribute copies of their own articles and suggest other titles. Obviously, inclusion of an item in the Bibliography does not imply agreement with its contents. Some of the items listed in the biographical section, for example, are of interest primarily as contributions to the Einstein myth. The work of assembling the bibliography and collection will continue, and it is hoped that at some stage, when it is sufficiently complete to be of wider use, that the bibliography can be published. Since it has not yet reached that stage, references are not always complete or in a standardized form.

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I. WRITINGS OF ALBERT EINSTEIN.

Almost all of the published writings of Albert Einstein up to 1955 have been reproduced in the Readex Edition and have not been included in this bibliography. They are all listed, along with references to some additional writings not included in the Readex Edition in the bibliographies in Section IB. More recent publications which include previously unpublished writings are listed in Section 1C.

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APPENDIX A

LAST WILL AND TESTAMENT

of

ALBERT EINSTEIN

Deceased

WILL DATED MARCH 18, 1950

DATE OF DEATH APRIL 18, 1955

MAASS, DAVIDSON, LEVY, FRIEDMAN & WESTON
Attorneys
100 Park Avenue, New York 17, N. Y.

IN THE NAME OF GOD, AMEN:

I, ALBERT EINSTEIN, of Princeton, New Jersey, being of sound and disposing mind and memory, and mindful of the uncertainty of life and the certainty of death, do hereby make, publish and declare this to be my Last Will and Testament, in manner following, to wit:

FIRST:

I direct that all my just debts and funeral and testamentary expenses be paid as soon as practicable after my decease.

SECOND:

I give and bequeath all of my furniture and household goods, chattels and effects, of every kind or nature, to my step-daughter, MARGOT EINSTEIN.

THIRD:

I give and bequeath my books and all of my personal clothing and personal effects, except my violin, to my secretary, HELENA DUKAS.

FOURTH:

I give and bequeath my violin to my grandson, BERNHARD CAESAR EINSTEIN. If he shall be not of legal age, then I authorize and empower my Executors to deliver the same to his father, my son ALBERT EINSTEIN, JR., in his behalf, to be turned over to my said grandson when he shall attain majority.

FIFTH:

I give and bequeath to my step-daughter, MARGOT EINSTEIN, the sum of TWENTY THOUSAND DOLLARS (\$20,000.00).

SIXTH:

I give and bequeath to my secretary, HELENA DUKAS, the sum of TWENTY THOUSAND DOLLARS (\$20,000.00).

SEVENTH:

I give and bequeath to my son, EDUARD EINSTEIN, the sum of FIFTEEN THOUSAND DOLLARS (\$15,000.00).

EIGHTH:

I give and bequeath to my son, ALBERT EINSTEIN, JR., the sum of TEN THOUSAND DOLLARS (\$10,000.00). If he shall predecease me, then I give and bequeath the said sum to my grandson, BERNHARD CAESAR EINSTEIN.

NINTH:

If my sister, MARIE WINTELER, shall be living at my death, I give and bequeath the sum of TEN THOUSAND DOLLARS (\$10,000.00) to my step-daughter, MARGOT EINSTEIN, IN TRUST, NEVERTHELESS, to hold, invest and reinvest the same, and to pay over or to apply for the use and benefit of my said sister the income and principal thereof, to the extent and in the manner which my said step-daughter shall deem proper, for the care, comfort and welfare of my said sister, for life. If my said sister shall survive me but shall die before said fund shall be exhausted,

then the balance of income and principal remaining at her death shall pass and be paid over by my said step-daughter, MARGOT EINSTEIN, to herself, for her own use and benefit. If my said step-daughter shall die or for any other reason fail or cease to act as Trustee of this fund, then I designate my secretary, HELENA DUKAS, as substitute in her stead.

TENTH:

If any of the legatees hereinbefore named shall predecease me, the bequest, legacy or fund provided for his or her benefit shall lapse, except as otherwise specifically hereinbefore provided, and the property or fund in question shall pass as part of my residuary estate.

ELEVENTH:

If the amount of my estate shall be inadequate to provide for the payment or setting up, in full, of the legacies and trust fund provided for in paragraphs FIFTH through NINTH hereof, then there shall be no priority, but the same shall abate proportionately.

TWELFTH:

After the foregoing legacies, bequests and trust fund shall have been paid, delivered or set up, and out of my then remaining estate, other than the specific property allocated by me to the trust fund next hereinafter provided for, I direct my Executor to pay all transfer, estate or inheritance taxes which might otherwise be chargeable or apportionable upon or with respect to the foregoing bequests, legacies and trust fund, to the end

that if the amount of my estate shall permit, the same shall be paid, delivered or set up in full as hereinbefore directed.

THIRTEENTH:

I give and bequeath all of my manuscripts, copyrights, publication rights, royalties and royalty agreements, and all other literary property and rights, of any and every kind or nature whatsoever, to my Trustees hereinafter named, IN TRUST, NEVERTHELESS, to hold the same for a term measured by the lives of my secretary, HELENA DUKAS, and my step-daughter, MARGOT EINSTEIN, and during such term to administer the said trust in manner following, to wit:

(A) To sell, publish, license or otherwise dispose of any or all of the said property and rights so bequeathed to them as Trustees as aforesaid, and also any and all property received in exchange therefor, and any investments or reinvestments at any time held in this trust fund, in such manner, and upon such terms and conditions, as they, in their sole and absolute judgment and discretion, shall jointly determine from time to time.

(B) To pay and turn over to my secretary, HELENA DUKAS, all of the net income received or collected from time to time, and as well any sum or sums of money whatsoever which shall constitute principal of this trust fund, and which may be received, collected or held hereunder by my Trustees, at any time or from time to time, all to the extent and in the manner to be solely determined by the said HELENA DUKAS in her own absolute discretion, and which may be required by her, during her lifetime, in writing delivered to the Trustees then acting hereunder, other than herself if she shall then be one of the Trustees.

(C) After the death of the said HELENA DUKAS, to pay and turn over all such net income to my said step-daughter, MARGOT EINSTEIN, and similarly to pay and turn over to her any sum or sums of money out of the principal thereof to the same extent and in the same manner as provided in the foregoing subdivision (B) hereof.

(D) To deliver and turn over to HEBREW UNIVERSITY any funds or specific property held in this trust, at any time, upon the written direction of the said HELENA DUKAS during her lifetime, and thereafter upon the written direction of my said step-daughter, MARGOT EINSTEIN, during her lifetime.

(E) Upon the death of the said HELENA DUKAS and the said MARGOT EINSTEIN, this trust shall terminate, and thereupon all funds or property, if any, still held in this trust, including all accrued, accumulated and undistributed income and all literary rights and property, shall pass and be distributed to HEBREW UNIVERSITY, subject only to the expenses or liabilities of the trust.

(F) In the interpretation of this provision of my will, it is to be borne in mind that my primary object is to make further provision for the care, comfort and welfare of my said secretary, HELENA DUKAS, during her lifetime; my secondary object is to make such further provision for the care, comfort and welfare of my said step-daughter, MARGOT EINSTEIN, during her lifetime; and my final object is that any such property which may then remain (whether it consist of original manuscripts, or literary rights or property still owned by my estate, or the proceeds from the disposition of any such property or rights) shall, to the extent that the same shall not have been distributed or paid over to my said secretary and my said step-daughter, pass to HEBREW

UNIVERSITY and become its property absolutely, to be thereafter retained or disposed of by it as it may deem to be in its best interests. To these ends, I direct that if the said HELENA DUKAS during her lifetime, or the said MARGOT EINSTEIN thereafter, shall require that any moneys be paid to them out of this trust, and there shall be inadequate funds available for the purpose, then property or assets of the trust shall be sold or otherwise dealt with as may be necessary to produce such funds, but the Trustees of this fund shall jointly determine what shall be sold or otherwise disposed of, and the time, terms and manner of such sale or other disposition, and no such disposition may be made except upon such joint consent.

FOURTEENTH:

All of the rest, residue and remainder of my estate, of every kind or nature, whether real or personal, and wherever situate, I give, devise and bequeath to my step-daughter, MARGOT EINSTEIN, or if she shall predecease me then to my son, ALBERT EINSTEIN, JR., for her or his own use and benefit.

FIFTEENTH:

Without limitation of the absolute nature of the bequest of my residuary estate, if my sister, MARIE WINTELER, shall survive me and the trust fund for her benefit under paragraph NINTH hereof shall be thereafter exhausted, then I request my said step-daughter, or if she shall predecease me, then my said son, to make other or further provision, as may be necessary from time to time, out of my residuary estate to be received by them as aforesaid, for the care, comfort and welfare of my said sister, as long as she shall live.

SIXTEENTH:

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I direct that there shall be apportioned to and charged against the trust fund under paragraph THIRTEENTH hereof that proportion of all federal or state transfer, estate or inheritance taxes imposed upon my estate which the value of the property allocated to said trust shall bear to the amount of my net taxable estate before exemptions, all such values to be taken as they shall be determined in the respective tax proceedings. The amount of such taxes to be apportioned against such fund shall be a charge thereon, and the assets and property allocated thereto hereunder may be sold or otherwise disposed of either by my Executor alone, or by the Trustees of said fund, as may be necessary to provide funds to meet such taxes.

SEVENTEENTH:

(A) I nominate, constitute and appoint my friend, DR. OTTO NATHAN, as sole executor hereof.

(B) I further nominate, constitute and appoint the said OTTO NATHAN and my secretary, HELENA DUKAS, jointly, as trustees of the trust under paragraph THIRTEENTH hereof.

(C) I further nominate, constitute and appoint my attorney, DAVID J. LEVY, Esq., of the Borough of Manhattan, New York City, as substitute executor hereof, and substitute trustee of the trust under paragraph THIRTEENTH hereof.

(D) I direct that my said executor, trustees and substitute shall be permitted to qualify and act hereunder, at any time and in any jurisdiction, without giving bond or other surety.

EIGHTEENTH:

I do hereby confer upon my executor, trustees, and any substitute, the power, authority and discretion, without application to any court, and in addition to the rights and powers otherwise provided by law: (1) To hold and retain any assets or property received hereunder, and any property received in exchange therefor, either permanently or temporarily, as they in their sole judgment and uncontrolled discretion shall determine; (2) to sell, exchange or otherwise dispose of same, either for cash or upon credit, secured or unsecured; (3) to mortgage, lease or sell any and all real estate on any terms and conditions; (4) to grant options, and to participate, as to assets or property held by them, in any reorganizations or rearrangements, upon any terms; (5) to borrow money, without personal liability, and upon any terms and conditions deemed advisable, and to secure repayment thereof; (6) to adjust, compromise or arbitrate any claims or demands of or against my estate, including tax matters; (7) to hold securities or property of my estate in the names of nominees, or in such form as to pass by delivery; (8) to maintain a custody account or accounts, and to employ investment counsel or accounting services, charging the cost thereof to my estate; (9) to make distributions either wholly or partly in kind, and for that purpose to fix values; (10) to determine and allocate income and principal and charges thereto; (11) to pay or apply income or principal for any minor beneficiary hereunder either directly to such beneficiary or to his parent or legal or natural guardian, or to any person standing in loco parentis, or otherwise; and (12) to do, generally, any and all

things with respect to my estate as they in their good judgment shall deem wise and proper and in the best interests of the beneficiaries hereof, it being my intention that all of the foregoing shall be construed so as to give my said executor, trustees and substitute the broadest and widest latitude in the administration and management of my estate, so long as they shall act in good faith.

LASTLY:

I hereby revoke any and all wills or codicils by me at any time heretofore made.

IN WITNESS WHEREOF, I have hereunto set my hand and seal, this 18th day of March, in the year one thousand nine hundred and fifty.

ALBERT EINSTEIN (L. S.)

SIGNED, SEALED, PUBLISHED and DECLARED by ALBERT EINSTEIN, the Testator above-named, to be his Last Will and Testament, in our presence, and we, at his request, and in his presence, and in the presence of each other, have hereunto subscribed our names as witnesses, this 18th day of March, 1950.

KATHERINE RUSSELL
Residing at Winant Road, Princeton, N. J.

KURT GÖDEL
Residing at 129 Linden Lane, Princeton, N. J.

DAVID J. LEVY
Residing at 1092 East 21st St., Brooklyn, N. Y.

Memorandum of Agreement

made at Princeton, New Jersey, this 22nd day of February 1971

B E T W E E N

THE ESTATE OF ALBERT EINSTEIN acting through Helene Dukas and Otto Nathan Trustees under the Will of Albert Einstein (hereinafter called the Proprietor and designated by the masculine singular pronoun)

A N D

PRINCETON UNIVERSITY PRESS, of Princeton, New Jersey (hereinafter called the Publishers)

relating to a work now entitled

THE PAPERS OF ALBERT EINSTEIN

~~XXXXXXXXXX~~

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2. The work will be performed with the editorial cooperation of the Institute for Advanced Study, which houses the Einstein archives. See also Paragraph 8.

3. To assure the scientific and scholarly quality of the editorial work, the Proprietor and the Publishers agree jointly to appoint, in consultation with the Institute for Advanced Study, an Editorial Advisory Board of not less than seven persons or such larger number as may be agreed upon by the Parties from time to time. Vacancies on the Board will be filled in the same way as the original appointments to the Board.

4. On the advice of the Editorial Advisory Board, the Proprietor and the Publishers will jointly appoint the Editor, who will have the primary responsibility of organizing and preparing the material for publication, including any necessary copyright clearances. The Editor may appoint, with the consent of the Proprietor and Publishers, associate editors or assistant editors for individual volumes or series of volumes.

5. The Work is understood to include the complete writings of Albert Einstein, published and unpublished, scientific and non-scientific, including correspondence, except for such papers as the Proprietor finds it necessary to withhold for reasons of privacy. Standards of editorial selection shall be determined by the Editor in consultation with the Editorial Advisory Board.

6. All documents included in the basic edition of the Work shall be incorporated in their original languages. Other editions will be published at the discretion of the Publishers after consultation with the Editorial Advisory Board and the Proprietor. The publishers agree to grant a royalty-free license to The Hebrew University, Jerusalem, Israel, to publish a Hebrew-language edition at their own expense.

7. Publishing costs after preparation of manuscripts suitable for the printer will be borne by the Publishers. Editorial costs for preparation of manuscripts will be paid from funds raised especially for the purpose and deposited with, and administered by, the Publishers (a non-profit corporation, to which contributions are tax-deductible); the Proprietor and the Publishers agree jointly to seek contributions for this purpose. An annual budget for the editorial work will be drawn up and mutually approved by the Proprietor and the Publishers. During the budget year the Publishers will have authority to approve changes in the provisions of the budget for editorial expenses. The Publishers shall prepare an annual accounting of income and expenditure and shall submit a copy of that accounting to the Proprietor. Any surplus of the funds raised that may be left after completion of the editorial work will be used to further the ideas and ideals of Albert Einstein upon joint decision by the Proprietor and the Publishers, but such use will be restricted to tax-exempt purposes.

8. Other institutions or individuals may be enlisted in the effort to carry out this project, as sponsors or otherwise, by mutual agreement of the Proprietor and the Publishers.

APPENDIX C

EDITORIAL ADVISORY BOARD

VALENTINE BARGMANN

Professor Emeritus of Mathematical Physics, Princeton University

PETER G. BERGMANN

Professor of Physics, Syracuse University

MARSHALL CLAGETT

Professor, School of Historical Studies, Institute for Advanced Study

FREEMAN J. DYSON

Professor, School of Natural Sciences, Institute for Advanced Study

BANESH HOFFMANN

Professor Emeritus of Mathematics, Queens College

GERALD HOLTON

Professor of Physics, Harvard University

RES JOST

Professor of Theoretical Physics, Swiss Federal Institute of Technology

MARTIN J. KLEIN

Professor of the History of Physics, Yale University

MARSTON MORSE

Professor Emeritus, School of Mathematics, Institute for Advanced Study

SHMUEL SAMBURSKY

Professor of the History and Philosophy of Science, The Hebrew University

CHARLES SCRIBNER, JR.

President, Charles Scribner's Sons

JOHN A. WHEELER

Professor of Physics, University of Texas

HARRY WOOLF

Director, Institute for Advanced Study

APPENDIX D

STATEMENT OF THE TRUSTEES OF THE TRUST ESTABLISHED UNDER ARTICLE 13th
OF THE
LAST WILL OF ALBERT EINSTEIN OF MARCH 18, 1950

In view of some of the questions raised by Mr. Ronald J. Overmann in his letter to Mr. Herbert S. Bailey, Jr. of March 4, 1977 as well as in regard to some remarks made to Dr. John Stachel in his meeting with several officers of the National Science Foundation on March 31, 1977 we should like to make the following statements:

1. We chose Princeton University Press as the publisher of The Einstein Papers since the Press was the publisher of the first book published by Einstein in the United States in 1922 and since both Einstein and we ourselves have had over the years many contacts with Princeton University Press and particularly with its present Director, Mr. Herbert S. Bailey, Jr. Since the archives are in Princeton and since Einstein's secretary, Miss Helen Dukas, who is the Archivist of the Einstein Collection and also one of the two Trustees of the Trust established under Einstein's Will, lives in Princeton, the proximity of Princeton University Press was an important factor in making our decision. The Archivist has a most intimate knowledge of the Papers and of many developments and events that an Editor would want to know in preparing Einstein's Papers for publication. The location of the Press and the location of the Institute for Advanced Study, where the archives are housed, suggested to us that the editorial work would benefit greatly if it were to be done in Princeton. The fact that the Press has published many outstanding works and, particularly, is the publisher of the Jefferson and Woodrow Wilson Papers was a further inducement to offer the publication of the Einstein Papers to Princeton University Press.

2. We have never had any intention to suppress any material for publication. In fact, in the 22 years since Einstein's death we have made tireless efforts to obtain additional Einstein material or photostatic copies of such material literally from all over the world. By doing so we have succeeded in enlarging the collections of the archives to a very considerable extent. It is expressly mentioned in the agreement between Princeton University Press and ourselves that the publication is understood to include "the complete writings of Albert Einstein, published and unpublished, scientific and non-scientific, including correspondence." We have only reserved the right to withhold specific documents from publication "for reasons of privacy." We have done so out of respect for Albert Einstein and in view of the responsibility we felt toward him. So far we have made use of that right only in a very few cases, relating to the immediate Einstein family.

3. Doubts were expressed in the discussion between the National Science Foundation and Dr. Stachel about the position of The Hebrew University. According to the Will of Albert Einstein, copy of which was submitted to the Foundation, The Hebrew University will be the eventual owner of the Einstein Papers. The Hebrew University has always shown great interest in the project of the "Einstein Papers." This interest was frequently expressed, both orally and in writing, by the President of the University and several important faculty members. They stated that they considered the project of the utmost significance, expressed their eagerness to cooperate and to give any support they would be in a position to offer.

4. The question was raised in the meeting with Dr. Stachel whether the Estate can make any funds available "to help finance the project." The Estate has been exceedingly active, ever since signing the agreement with Princeton University Press on February 22, 1971, to raise funds from private individuals who were assumed to be sympathetic to the memory of Einstein and to the publication of his Papers, as well as from organizations which seemed to be particularly appropriate for the purpose. So far we have not received any positive response to our efforts which we continue making with the hope for some success in the future. The Estate itself has no funds available for the purpose. According to the Last Will of Albert Einstein the royalties received from the sale of his published works--which are not very considerable anyhow--are to be turned over to his secretary or to his step-daughter to provide means for their livelihood.

Signed by Helen Dukas and Otto Nathan,
Trustees under the Trust of the Last
Will of Albert Einstein.

May 8, 1977
Princeton, New Jersey and New York, New York

Princeton University Press PRINCETON, NEW JERSEY 08540 (TEL. 609-452-4900)

President, HAROLD W. MCGRAW, JR. *Trustees*, CYRIL E. BLACK, JOHN TYLER BONNER,
WILLIAM G. BOWEN, ALFRED G. FISCHER, AARON LEMONICK, RICARDO A. MESTRES, EARL MINER,
JOHN F. PECKHAM, CARL E. SCHORSKE, CHARLES SCRIBNER, JR., ARTHUR H. THORNHILL, JR.,
EDWARD R. TUFTE, THOMAS H. WRIGHT

May 12, 1977

APPENDIX E

Application to the National Science Foundation for Support for

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Statement of Princeton University Press

1. Support for the Editor, the search for funds: A private donor has promised to provide an endowed fund in Princeton University to support the Editor of the Einstein papers. Thus the salary and fringe benefits of the Editor will be supported from this source, and we are applying only for other expenses. At this time we have no other guarantee of support for the editorial research for the Einstein papers. We hope that primary support will come from the National Science Foundation. We are also hoping for coordinated support from the National Endowment for the Humanities, in consideration of the potential importance of Professor Einstein's papers for humanistic studies. We have discussed the project in a preliminary way with the National Historical Publications and Records Commission, which seems favorably inclined, and might provide some modest support. We have kept the Sloan Foundation informed of our plans, and they are interested in principle, but we have not made any formal request to them. On our behalf some preliminary explorations have been made with regard to the possibility of help from the Technion-Israel Institute of Technology. In addition we are studying the possibility of seeking endowment funds from private and corporate sources for operating expenses.

2. The completeness of the Edition: It is our intention to publish an edition of the Einstein papers, in the original languages, as complete and accurate as possible. The agreement between the Einstein Estate and Princeton University Press provides that the Estate can withhold material from publication for reasons of privacy only. The Estate also affirms, understandably, that it cannot agree to the publication of material which it has not seen and which it may regard as invading the privacy of Professor Einstein or living persons. We do not regard the restriction on the grounds of privacy as a significant bar to the project. It should be added that the editorial content (introduction, notes, and the like) will not be censored by the Estate or by the Press; the Editor will have the usual editorial freedom and responsibility accorded to editors of scholarly editions.

3. The Editorial Advisory Board: This Board was formed to advise the Estate and the Press on the development of the project. It includes members from Princeton University and the Institute for Advanced Study,



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historians and physicists, a publisher, and a representative of the Hebrew University in Jerusalem. One meeting of the full Board was held to discuss the general nature of the edition and the choice of an editor. The Estate and the Press have also consulted individuals and small groups from the Editorial Advisory Board from time to time. Board members were asked to comment on this proposal. The Board is responsible to advise the Estate and the Press; members are also available to the Editor for consultation.

4. The Editorial Committee: This is a small group (probably six) of scholars chosen by the Editor to advise him in detail on the Edition. It is expected that considerable demands will be made on them, and they will be expected to meet twice a year to review progress and make recommendations.

It should be pointed out that both the Editorial Advisory Board and the Editorial Committee are advisory, one to the Estate and the Press and the other to the Editor. It is expected that members of the Editorial Committee will also be appointed to the Editorial Advisory Board. Final editorial decisions on the Edition rest with the Editor and responsibility for the project as a whole lies jointly with the Estate and the Press. Nevertheless we expect recommendations of both the Board and the Committee to carry great weight, since they are composed of distinguished and well-informed scholars and scientists.

5. Publishing arrangements: It is our intention that the publishing costs will be carried by Princeton University Press, but that the editorial research will be paid for by foundation grants. In fact, however, Princeton University Press has already incurred costs exceeding \$10,000 in efforts to make arrangements for the research, and it may be necessary for the Press to make further expenditures in support of the research, depending on the timing and amount of grants.

It is impossible at this time to say how the published volumes will eventually be priced, since it will be three to five years before any volumes can be published, and we do not even know how many pages there will be in each volume. After the first volume is published, we hope to proceed at the rate of one to two volumes per year, up to a total of about twenty volumes. For reference, however, we can say that if the volumes run to approximately 500 pages, under present costs we would expect to charge \$30 to \$35 per volume. The pricing will depend to some extent on whether the edition is recognized by the National Historical Publications and Records Commission, so as to be eligible for publication support. If publication support is available from NHPRC, the price could be lower. Also we expect to provide a ten percent discount for subscribers.

The only publication in addition to the complete edition already planned is a selected volume of scientific papers in English translation. Plans for this volume are preliminary and have not been approved

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by the Estate. It seems likely that there will be other ancillary volumes developed as the project progresses, such as selected correspondence in English, but it is impossible now to be more specific.

6. The choice of Princeton University Press as publisher: Princeton University Press was the first Einstein publisher in America, having published THE MEANING OF RELATIVITY in 1922. The Press was also Einstein's last publisher, having published his "Generalized Theory of Gravitation" as an appendix to the fifth edition of THE MEANING OF RELATIVITY; Professor Einstein died shortly before the fifth edition was published. Shortly after Einstein's death the Director of the Press and the Estate discussed the possibility of publishing Einstein's writings. For various reasons no definite plan emerged immediately, but there were intermittent discussions over the years, and in 1971 a contract was signed between the Estate and the Press for publication of the complete writings of Albert Einstein. The contract provides for royalties to the Estate in accordance with the responsibilities of the Estate under Einstein's will. The reasons for the Estate for choosing Princeton University Press include the Press's long association with Einstein, its location in Princeton near the Archives, the Press's reputation as a publisher (especially of such editions as WILSON and JEFFERSON), and the Press's demonstrated seriousness and commitment to the project.

Apparently NSF has not previously made research grants to publishers, though there is no legal bar to such grants, and there are precedents. For example, between 1967 and 1976 the Press administered a series of grants from the National Endowment for the Humanities supporting the editorial research for the PRINCETON ENCYCLOPEDIA OF CLASSICAL SITES, which was published in July 1976. At present the Press is administering a grant from NEH for the translation and editing (including the preparation of introductions and bibliographies) of four important modern works on the Middle East. In addition the Press administers the research for several major editions in the Bollingen Series, with funds provided by the Bollingen Foundation, including THE COLLECTED WORKS OF S. T. COLERIDGE, THE COLLECTED WORKS OF C. G. JUNG, THE SELECTED WRITINGS OF UNAMUNO, and others. In short, there are precedents for this kind of grant, and we are not inexperienced in the management of such projects.

7. Royalties: The contract between the Estate and the Press provides for royalties to the Estate, in accordance with the requirement of Einstein's will that the Estate should provide income for his secretary and his step-daughter. The Press will make a very large investment in publication in addition to the cost-sharing of research expenses by the Press and Princeton University. We do not think it would be appropriate for the NSF to ask for reimbursement from sales of the work, until after the cost-sharing and publication expenses are recovered.

8. The Hebrew University: The Hebrew University at Jerusalem is the successor to the Trust established by Einstein's will, after the

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deaths of the two Trustees and Miss Einstein. The lawyers for the Estate and for the Press have independently advised that the Hebrew University is bound by the contract between the Estate and the Press. The Hebrew University thus will eventually become the owner of the original documents. In the past they have expressed cooperation and approval of what we are doing, and we do not anticipate that they would want to remove the originals while the Edition is in preparation.

APPENDIX F

PRELIMINARY LIST OF LIBRARIES AND ARCHIVES TO BE VISITED (E = needed for early period: before 1914)

FOREIGN

Austria

Verein für Geschichte der Arbeiterbewegung - Vienna:
Holds the papers of the Adler family, including
Friedrich's correspondence with Victor re Einstein. E

Czechoslovakia

Central State Archive of the Czechoslovak Socialist Republic -
Prague: E
Holds material on Einstein's appointment to Chair in Prague.

France

Bibliothèque National - Paris: E
Einstein-Curie letters

Fondation Curie - Institut de Radium - Paris: E
Holds the papers of Mme. Curie

Germany

Archiv der Akademie der Wissenschaften der DDR - Berlin E

Archiv der Humboldt-Universität zu Berlin

Bibliothek und Archive zur Geschichte der Max Planck Gesell- E
schaft - Berlin:
Continues the former Kaiser-Wilhelm Gesellschaft of 1911.

Deutsche Forschungsgemeinschaft - Bonn-Bad Godesberg:
Has records of the Notgemeinschaft der deutschen Wissenschaft.

Stiftung Preussischer Kulturbesitz - Berlin: E
Holds Stark papers, among many others.

Great Britain

House of Lords Record Office - London:
Has the papers of Lord Samuel.

National Library of Scotland - Edinburgh:
Has the papers of Lord Haldane

Nuffield College - Oxford:
Has the papers of Lord Cherwell (Lindemann)

APPENDIX F
(continued)

Israel

Hebrew University Library - Jerusalem

Weizmann Archives - Rehovoth:

Clark mentions "190 pages of correspondence in the Weizmann Archives, Rehovoth . . . deal with Einstein's connections with Zionism from 1918 until the year of his death."

Weizmann Institute of Science - Rehovoth:

Has Einstein's reprint collection.

Italy

Accademia Nazionale dei Lincei, Biblioteca dell' (Library of the National Academy) - Rome:

Has the Levi-Civita correspondence.

The Netherlands

Algemeen Rijksarchief te 'sGravenhage (General State Archive) - The Hague E

Rijksmuseum voor de Geschiednis der Natuurwetenschappen (National Museum for the History of Science) - Leyden: E
They hold the Lorentz papers.

Sterrewacht, Leiden (Leyden Observatory) - Leyden:
Holds the de Sitter papers.

Switzerland

Bibliothèque des Nations Unies (United Nations Library) - Geneva:
Contains records of International Committee on Intellectual Cooperation of League of Nations.

Eidgenössisches Amt für geistiges Eigentum (Swiss Patent Office) - Bern E

Eidgenössische Polytechnische Hochschule - Bibliothek (Library of the Swiss Federal Institute of Technology) - Zurich: E

For catalogue of collection see: Die Einstein-Sammlung der ETH-Bibliothek in Zürich: Ein Überblick für Benutzer der Handschriften-Abteilung, forward by A.E. Jaeggli (Zürich, 1970).

APPENDIX F
(continued)

United States*

American Jewish Historical Society - New York:

Solomon R. Kagan papers; National Committee for the Maimonides Octocentennial records, 1931-1935.

American Philosophical Society Library - Philadelphia:

Max Bergmann papers; Simon Flexner papers, containing many Abraham Flexner papers; The Sources for the History of Quantum Physics, Scientists' Letters collection which includes Einstein.

California Institute of Technology Library - Pasadena

George Ellery Hale papers; Robert A. Millikan papers.

Columbia University Libraries - New York:

National Emergency Civil Liberties Committee records, 1951-1968; Guglielmo Ferraro papers.

Cornell University Libraries, Department of Manuscripts and University Archives - Ithaca:

Gustave Watts Cunningham correspondence; letters from Viscount Haldane discussing Einstein.

Duke University Library - Durham, North Carolina:

Scientists' papers, 1843-1948 includes Einstein items.

Leo Baeck Institute Collections - New York:

K. R. Grossmann papers; Erich Kahler papers; Einstein papers.

Library of Congress, Manuscript Division - Washington, D.C.:

Various collections, including T.J.J. See, F.E. and H.E. Ives, Oswald Veblen, R.G. Swing, Piccard Family, Jacques Loeb, F.J. Harriman.

New York Public Library - New York:

Wertheimer papers.

Shaw Society of America, Bucknell University Library - Lewisburg, Pennsylvania:

Autographs of Albert Einstein.

Stanford University Libraries - Palo Alto:

Scientists and Science collection contains Einstein material.

Syracuse University Library - Syracuse:

Michel Licht papers.

University of Chicago Library - Chicago:

Emergency Committee of Atomic Scientists records, 1946-1951; E.I. Rabinowitch papers; James Franck papers.

University of New Hampshire Library - Burlington:

Oskar Maria Graf papers.

*Based on listings in The National Union Catalog of Manuscript Collections.

APPENDIX F
(continued)

Wilbur Collection; Guy W. Bailey Collection, University of Vermont - Burlington:
Sarah N. Norcliffe papers.

Yivo Institute of Jewish Research Library - New York
Collections of letters includes Einstein material.

UNITED STATES**

American Institute of Physics, Center for History of Physics Collection - New York:
Has Sources for History of Quantum Physics collection.

American Jewish Archives - Cincinnati:
Has Leon Watters correspondence with Einstein, including Watters comments.

Burndy Library - Norwalk, Connecticut:
Holds unpublished Ehrenhaft manuscript on "My Experiences with Einstein."

Duke University Library - Durham, North Carolina:
Socialist Party of America Manuscript - National Correspondence: 3 letters.

Frederick Zweig Archive - Stamford, Connecticut:
Letters

Harvard University, Houghton Library - Cambridge:
Autograph file; Richard Beer-Hoffmann Collection; George Sarton papers. Oswald Garrison Villard papers.

Indiana University, The Lilly Library - Bloomington:
Has papers of Arthur Bentley, Cyril Clemens, DeWitt, Max Eastman, Herbert Fleischmann, Vaclav Hlavaty, Upton Sinclair, Viking Press.

John Hopkins University, Milton S. Eisenhower Library - Baltimore:
1 letter

Library of Congress, Manuscript Division - Washington, D.C.:
Benjamin W. Huebsch papers

Minnesota Historical Society - St. Paul:
James Gary papers

Boston University, Mugar Memorial Library - Boston:
Has 20 letters from and 1 letter to Einstein.

** Sources not listed in NUCMUC

APPENDIX F
(continued)

Oberlin College Library - Oberlin, Ohio:
1 letter

Roosevelt Library - Hyde Park, New York

Smithsonian Institution Archives - Washington, D.C.:
Two letters; ms on Newton

Southern Illinois University, Special Collections - Carbondale:
Erwin Piscator papers

Stanford University, Isaac Newton Collection - Palo Alto, California:
Letters, newspaper and periodical clippings

Stanford University, Newcomb Collection - Palo Alto, California:
13 letters about Einstein

State University of New York, Department of Germanic Languages
and Literatures, Storm Publishers Archive - Albany:
Two letters to Alexander Gode von Aesch

Szilard Archives - San Diego, California

U.S. ERDA, Office of Chief of Naval Operations, National Archives
and Records Service - Washington, D.C.:
Material dealing with Einstein's work during the Second
World War

University of Chicago, Regenstein Library - Chicago:
Joseph Schaffner papers

University of Iowa, Special Collections - Ames, Iowa
Six letters

University of Kansas, Kenneth Spencer Research Library - Lawrence, Kansas:
Two letters

University of Minnesota, Social Welfare History Archives Center -
Minneapolis:
Survey Associates Papers has 3 letters and documents.

Yale University, Beineke Rare Book and Manuscript Library -
New Haven:
Hermann Broch Archive

APPENDIX G

John Stachel - Curriculum Vitae

Education: B.S., City College of the C.U.N.Y., 1956
M.S., Stevens Institute of Technology, 1959
Ph.D., Stevens Institute of Technology, 1962

Professional History:

Lehigh University: Instructor of Physics, 1959-61
University of Pittsburgh: Instructor of Physics, 1961-62
Research Associate, 1962-64
Boston University: Assistant Professor of Physics, 1964-69
Associate Professor of Physics, 1969-72
Director, Institute for Relativity Studies, 1972 -
Professor of Physics, 1972 -

Visiting Posts:

Institute for Theoretical Physics, Warsaw: Visiting Research Associate,
one half-year, 1962
Temple University Relativity Group: Research Associate, Summers of 1965,
1966 and 1968.
Centro de Investigacion y de Estudios Avanzados del I.P.N., Mexico:
Visiting Professor, summers of 1966 and 1967.
King's College, University of London: Visiting Professor, 1970-71 aca-
demic year.
Institut Henri Poincaré, Paris: Visiting Professor as guest of the
C.N.R.S., April-May, 1971.
International Center for Theoretical Physics, Trieste: Visiting Scientist,
summer 1972.
Institute for Theoretical and Applied Mechanics, University of Paris VI:
Exchange Professor, January 1974.
Institut des Hautes Études Scientifiques, Bures (France): Visiting Pro-
fessor, March 1974.
Princeton University: Visiting Senior Research Fellow, Physics Dept., 1977-

Publications

Articles:

"Cylindrical Gravitational News", J. Math. Phys., 7, 1321 (1966).
"Einstein Tensor and Spherical Symmetry", J. Math. Phys., 9, (1968)
"Structure of the Curzon Metric", Phys. Letters, 27A, 60 (1968).
"Comments on 'Causality Requirements and the Theory of Relativity'" in R.S. Cohen and
M.W. Wartofsky (eds), Boston Studies in the Philosophy of Science, vol. V, p.96
(Reidel, 1969).

- "Behavior of Weyl-Levi Civita Coordinates for a Class of Solutions Approximating the Schwarzschild Metric", Nature, 219, 1346 (1968).
- "Perturbations of an Arbitrary Spherically Symmetric Metric", Nature, 220, 5169 (1968).
- "The Pure Radiation News Function in General Relativity", Phys. Rev., 179, 1251 (1969).
- "Covariant Formulation of the Cauchy Problem in Generalized Electrodynamics and General Relativity", Acta Physica Polonica, 35, 689 (1969).
- "Specifying Sources in General Relativity", Phys. Rev., 180, 1256 (1969).
- "Invariances of Approximately Relativistic Lagrangians and the Center-of-Mass Theorem I", with P. Havas, Phys. Rev. 185, 1636 (1969).
- "Einstein Tensor and 3-Parameter Groups of Isometries with 2-Dimensional Orbits", with H. Gönner, J. Math. Phys., 11, 3358 (1970).
- "External Sources in General Relativity", GRC Journal, 3, 257 (1972).
- "Comments on Two Papers in Quantum Mechanics", in R.S. Cohen and M.W. Wartofsky (eds), Logical and Epistemological Studies in Contemporary Physics, Boston Studies in the Philosophy of Science, Vol. XIII, p. 214, p.309 (Reidel, Dordrecht and Boston, 1973).
- "The Rise and Fall of Geometrostatics", in K. Schaffner and R.S. Cohen (eds), Proceedings of the 1972 Biennial Meeting, Philosophy of Science Association, Boston Studies in the Philosophy of Science, Vol. XX, p. 338 (Reidel, Dordrecht and Boston, 1974).
- "Introduction" to Symposium on "Current Problems in Cosmology" in R.S. Cohen and R.J. Seeger (eds), AAAS Symposium on Philosophy - 1969, Boston Studies in the Philosophy of Science, Vol XI (Reidel, Dordrecht and Boston, 1974).
- "A Note on Scientific Practice", in R.S. Cohen, J. Stachel, M.W. Wartofsky (eds), For Dirk Struik, Boston Studies in the Philosophy of Science, Vol. XV (Reidel, Dordrecht and Boston, 1974).
- "Space-Time Problems", Review of General Relativity, Papers in Honor of J.L. Synge, Science, 180, 292 (1973).
- "Invariance of Approximately Relativistic Hamiltonians and the Center-of-Mass Theorem", Phys. Rev., D13, 1598 (1976).
- "The 'Logic' of Quantum Logic," in PSA 1974: Proceedings of the 1974 Biennial Meeting of the Philosophy of Science Association, Boston Studies in the Philosophy of Science, Vol. CI (Reidel, Dordrecht and Boston, 1976).
- "Comments on 'Some Logical Problems Suggested by Empirical Theories' by Professor Dalla Chiara," to appear in Vol. XXXI of Boston Studies in the Philosophy of Science (Reidel, Dordrecht and Boston).
- "Center of Mass Theorem in Post-Newtonian Hydrodynamics," Phys. Rev., D 14:4, 917 (1976) with T. Pascoe and P. Havas.
- "A Variational Principle Giving Gravitational 'Superpotentials,' the Affine Connection, Riemann Tensor and Einstein Field Equations," to appear in GRC Journal: General Relativity and Gravitation.

In Active Preparation:

- "Conformal Two-Structure as the Gravitational Degrees of Freedom in General Relativity", with R. D'Inverno.
- "Do Quanta Need a New Logic?" to appear in University Pittsburgh Series in the Philosophy of Science.

"Gravitation and Quantization," to appear in University of Pittsburgh Series in Philosophy of Science.

"The Post-Newtonian Approximation in Relativistic Hydrodynamics," with T. Pascoe (based on his Thesis, 1973).

"Thickening the String"

"String Gravitational Field in Linear Approximation," with P. Letelier.

"The Equivalence Principle in Non-relativistic Quantum Mechanics," with B. Rosen.

"Palatini-type Variational Principle for Tetrad Fields," with A. Papapetrou.

"Classical Equations of Motion for Particles with Spin I," with J. Plebanski.

Theses:

"Energy Flow in Cylindrical Gravitational Waves", (M.S. Thesis, Stevens Institute of Technology, 1959).

"The Lie Derivative and the Cauchy Problem in the General Theory of Relativity", (Ph.D. Thesis, Stevens, 1962).

Abstracts of APS Talks:

"New Solution to the Einstein Field Equations", Bull. Am. Phys. Soc. 6, 305 (1961).

"Variational Principle and Conservation Laws in Post-Newtonian Hydrodynamics", Bull. Am. Phys. Soc., 14, 69 (1969) (with T. Pascoe).

"Bohm-Aharonov Effect and its Gravitational Analogue", Bull. Am. Phys. Soc., 14, 16 (1969).

"Quasi-Newtonian Approximation Method in General Relativity", with G. Gonzalez, Bull. Am. Phys. Soc., II, 15, 881 (1970).

"Variational Principles as a Basis for Approximation Methods in General Relativistic Hydrodynamics", Bull. Am. Phys. Soc. II, 15, 882 (1970).

Editorial Work:

"Selected Problems in General Relativity", by C. Moller, in Brandeis University 1960 Summer Institute in Theoretical Physics Lecture Notes, notes by J. Stachel and L. Pande.

Proceedings of the International Conference on Relativistic Theories of Gravitation, Warsaw 30-31, July, 1962 (Gauthier Villars and PWN, (1964) ed. by J. Stachel and others).

For Dirk Struik, Boston Studies in the Philosophy of Science, Vol. XV (Reidel, Dordrecht and Boston, 1974), ed. by J. Stachel and others.

Selected Papers on History and Philosophy of Science, by Leon Rosenfeld, ed. by J. Stachel and R.S. Cohen. Boston Studies in the Philosophy of Science. (D. Reidel, Dordrecht and Boston). In press.

Foundations of Space-Time Theories, Minnesota Studies in the Philosophy of Science, Vol. 8, with John Earman and Clark Glymour. (University of Minnesota Press, Minneapolis, 1977).

Editor; Collected Works of Albert Einstein. To be published by Princeton University Press.

Conference Organization:

Organized Symposium on "Current Problems in Cosmology", at 1969 Boston Meeting of the AAAS.

Member, since 1972, of the Organizing Committee for biennial "Texas" Conferences in Relativistic Astrophysics, held in New York (1972), Dallas (1974) and Boston (1976).

Organizer, Boston University Institute of Relativity Studies Conference on "Gravitation and Quantization", held at B.U. Conference Center, Andover, Mass., Oct. 31 - Nov. 3, 1972 (See report on Conference in Nature, vol. 240 (Dec. 15, 1972)).

Organizer, Boston University Institute of Relativity Studies Conference on "Absolute and Relational Theories of Space and Space-Time", held at B.U. Conference Center, Andover, Mass., June 3-5, 1974. (Proceedings published jointly with those of a similar conference at the University of Minnesota, by the University of Minnesota Press.)

Chairman, Local Organizing Committee for the Eighth "Texas" Symposium in Relativistic Astrophysics, Boston, Dec. 13-17, 1976. (Proceedings to be published by the N.Y. Academy of Science.)

Organizing Session of the AAAS meeting, Section L, on "Problems in the History of General Relativity," to be held during week of February 12, 1978.

Courses Taught:

Undergraduate

Physics for the Life Sciences
Electricity and Magnetism
Einstein: The Man, the Times, The Achievement
Modern Physics and Political Problems
Vibrations and Waves

Graduate

Quantum Mechanics
Thermodynamics
Electrodynamics
Special and General Relativity
Seminar in Relativity
Classical Mechanics

Reviewer for:

Articles: Annals of Physics, American Journal of Physics, Physical Review, GRG Journal.

Research Proposals: NSF Division of Theoretical Physics, Division of History and Philosophy of Science, Latin American Cooperative Science Program; CUNY Faculty Research Award Program.

Current Research Grants:

Quantum Logical Approaches to the Interpretation of Quantum Mechanics: Their Relation to Logical Theory, Space-Time Structures and Quantization of the Gravitational Field (NSF 1975-77).

Studies in the Classical Relativistic Dynamics of Particles and Fields. (with Peter Havas) (INT 76-05769).

APPENDIX H

Ms. Brigitte Hirschfeld
110-21 73rd Road
Forest Hills, New York 11375

Telephone: (212) 263-3620

Personal Data:

Marital Status: Widow.
Two children, aged 30 and 19.
Health excellent.

Occupational Objective:

To be associated with an organization where my experience and educational background in the field of languages, scientific research, and writing can be put to use.

Qualifications:

Shorthand in English and German. Working knowledge of French. Transcriptions from tape and dictaphone. Translations from German into English, English into German. Research on scientific subjects. Administrative and supervisory experience.

Experience Record:

1969 - present: Confidential executive secretary to the Director of the Department of Otolaryngology, Mount Sinai Services at City Hospital Center at Elmhurst, Queens, New York. Duties include supervision of clerical, technician and nurses aide staff, including supervision of time sheets and making a bi-weekly payroll; responsible for all communications to and from the department; coordination of vacation time and conference time for the staff; supervision of the rotation of twelve residents through three hospitals and preparation of the on call schedules for residents and attendings.

Research in the library and preparation of scientific papers for publication for the Director of the department. Scheduling his appointments, lecture tours, administrative meetings, operating and clinic dates. Sitting in on budget meetings. Purchasing equipment.

At all times my aim is to increase the efficiency of my department.

1966 - 1969: Administrative Assistant in the office of Arthur M. Fishberg, M.D., Internist and Cardiologist, 1136 Fifth Avenue, New York, New York 10028, now retired.

APPENDIX H
(continued)

1960 - 1966: Self-employed as Public Stenographer and Medical Secretary. My clients included about 12 physicians representing a cross-section of specialties, for whom I prepared papers for publication in scientific journals, evaluation of Nazi camp survivors for the German Government relating to restitution claims, and translations of medical material.

Until 1960 I worked for my husband, Kurt E. Hirschfeld, M.D., in his private practice as his secretary and nurse. He died in 1960.

Education:

High School in Germany and England. Matriculation from London University. Three years at Montessori Teachers College in London. Graduated with a diploma as Montessori teacher for elementary school. Secretarial school in two languages before arriving in the United States.

1974 - 1976: Took course at New York University School of Continuing Education, "The Administrative Assistant." Received Certificate in April 1976.

Personal and business references on request.

APPENDIX I THE COMPUTERIZED INDEXING SYSTEM

The database system for the Einstein Project will provide a simple, convenient method for generating indexes to the more than 50,000 pages of documents stored on microfilm. In addition, the system will also provide a simple means of inserting, updating, and correcting data contained in these indexes, which can be keyed chronologically, by subject, name, or any other type of information which may prove useful in the future, or any combination of these. (In computer jargon, this is a "general query system".)

The system will be composed of three main parts:

1. the data entry subsystem.
2. the data security and editing subsystem
3. the report generator

The data entry subsystem will allow readers not familiar with either computers or Einstein to enter information about the documents in an English-like form directly into the computer. (Or, if access to the computer is not possible, onto sheets which then can be directly keypunched or typed on a terminal.) All special codes and computer-convenient formats will be avoided in favor of human-convenient free format data entry. This should cut down on typing errors and make those that do occur easier to detect. The reader, however, will not be able to directly modify the database.

This will be the responsibility of the data security and editing subsystem, which will generate listings for reports of the entries made by the readers. At periodic intervals (most likely once a day) these data entry reports will be checked for errors (both in typing and judgment) by person or persons in charge of the contents of the database who will be able to enter approval of and/or changes in the data entries. This will be especially important in determining what will be classified as subjects of interest.

APPENDIX I
(continued)

The report generator will be able to produce cross-referenced listings of information about the documents indexed in a manner determined by the user of the system. For example, the user may wish to have a list of all letters written by Einstein between 1905 and 1910 in which relativity is mentioned. Unlike the Joseph Henry Papers system, there will not be a fixed amount of information stored per document, and subjects may be broken down into smaller units (e.g., relativity may be broken down into special and general relativity).

Great care will have to be taken in the programming of this system, because this project is still in the early stages and computer time is so expensive. Flexibility will be the watchword. The system will be designed to be used in either an interactive (time-sharing) or delayed (batch) system. At this time, generating a large number of different reports is not anticipated. However, this capability must be built into the system to justify its use in a project which will continue for several years, during which new needs will arise. This will prevent the taking of several quick and dirty shortcuts which would produce minimal results at only a slightly lower cost. The proposed figure for computer time is a maximum, assuming unforeseen complications. By doing as much programming on paper as possible, and keeping computer runs to a minimum costs can be kept down. The system will be built in (program) modules, allowing changes to be made easily, and increasing its adaptability to other projects. The programming language will be PL/I on Princeton University's IBM/360 computer.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN: RESEARCH GRANT PROPOSAL BUDGET

	1977 Salary	4 1/2 Months Ended 11/15/77	1 1/2 Months Ended 12/31/77	Calendar Year Ended December 31,					Total
				1978	1979	1980	1981	1982	
A. Salaries & Fringe Benefits									
1. Editor (Professor Stachel)--									
Salary	<u>\$35,000</u>	\$ 13,100	\$ 4,400	\$ 37,500	\$ 40,100	\$ 42,900	\$ 45,900	\$ 49,100	\$ 233,000
Fringe Benefits		2,100	600	8,100	8,600	9,200	9,900	10,600	49,100
2. Associate Editor--									
Salary	<u>\$30,000</u>	3,700*	3,800*	32,100	34,300	36,800	39,300	42,100	192,100
Fringe Benefits		800	800	6,900	7,400	7,900	8,500	9,100	41,400
3. Assistant Editors (2)--									
Salaries	<u>\$15,000</u>	5,600*	1,900*	32,100	34,300	36,800	39,300	42,100	192,100
Fringe Benefits		1,100	300	6,000	6,500	6,900	7,400	7,900	36,100
4. Secretary (Full-Time)--									
Salary	<u>\$10,000</u>	3,700	1,300	10,700	11,400	12,300	13,100	14,000	66,500
Fringe Benefits		700	200	2,000	2,200	2,300	2,500	2,600	12,500
5. Secretary (Half-Time)--									
Salary	<u>\$ 5,000</u>	--	--	5,400	5,700	6,100	6,600	7,100	30,900
Fringe Benefits				1,000	1,100	1,200	1,200	1,300	5,800
6. Consulting Editors--									
Salary	<u>\$30,000</u>	2,000	--	15,000	16,100	17,200	18,400	19,700	88,400
Fringe Benefits				3,000	3,200	3,400	3,700	3,900	17,200
7. Student Assistants--									
Salary	<u>\$3/hour</u>	2,300	700	6,000	6,500	7,000	7,500	8,000	38,000
8. Computer Programmer--									
Salary		<u>2,000</u>	--	--	--	--	--	--	2,000
		<u>\$ 37,100</u>	<u>\$ 14,000</u>	<u>\$165,800</u>	<u>\$177,400</u>	<u>\$190,000</u>	<u>\$203,300</u>	<u>\$217,500</u>	<u>\$1,005,100</u>
B. Other Editorial Costs									
9. Consultation Expenses for Editorial Committee		\$ --	\$ 2,100	\$ 4,500	\$ 4,800	\$ 5,200	\$ 5,500	\$ 5,900	\$ 28,000
10. Travel--									
(a) Foreign (Europe)		--	--	6,000	6,400	3,500	3,600	3,900	23,400
(b) Domestic		--	--	3,000	3,200	1,800	1,800	1,900	11,700
11. Photoduplication		4,100	1,400	3,000	1,000	1,100	1,100	1,200	12,900
12. Publication Acquisitions (books, etc.)		800	200	1,100	600	600	700	700	4,700
13. Rights and Legal Expenses		--	--	--	--	--	--	--	--
14. Computer Time		<u>2,500</u>	--	400	400	500	500	600	4,900
		<u>\$ 7,400</u>	<u>\$ 3,700</u>	<u>\$ 18,000</u>	<u>\$ 16,400</u>	<u>\$ 12,700</u>	<u>\$ 13,200</u>	<u>\$ 14,200</u>	<u>\$ 85,600</u>

*Figures reflect 1/2 year salary and fringe benefits for 1 Assistant Editor. 1978-1981 figures are for 2 Assistant Editors. Associate Editor budgeted to start October 1, 1977.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN: RESEARCH GRANT PROPOSAL BUDGET

(Continued)

	4 1/2 Months Ended 11/15/77	1 1/2 Months Ended 12/31/77	Calendar Year Ended December 31,					Total
			1978	1979	1980	1981	1982	
C. Office Expenses								
15. Telephone, Office Supplies, Postage	\$ 1,800	\$ 500	\$ 4,000	\$ 4,000	\$ 4,300	\$ 4,600	\$ 5,000	\$ 24,200
16. Space Costs (Included in Line-Item 19)	--	--	--	--	--	--	--	--
17. Equipment--								
(a) Permanent	--	--	1,200	--	--	--	--	1,200
(b) Expendable	--	--	1,000	--	--	--	--	1,000
	<u>\$ 1,800</u>	<u>\$ 500</u>	<u>\$ 6,200</u>	<u>\$ 4,000</u>	<u>\$ 4,300</u>	<u>\$ 4,600</u>	<u>\$ 5,000</u>	<u>\$ 26,400</u>
D. Other Expenses								
18. Moving Expenses	\$ 2,000	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 2,000
19. Indirect Costs (21% of Salaries in 1977; 28% Thereafter)	6,800	2,400	38,900	41,600	44,500	47,600	51,000	232,800
	<u>\$ 8,800</u>	<u>\$ 2,400</u>	<u>\$ 38,900</u>	<u>\$ 41,600</u>	<u>\$ 44,500</u>	<u>\$ 47,600</u>	<u>\$ 51,000</u>	<u>\$ 234,800</u>
Total Budget	<u>\$ 55,100</u>	<u>\$ 20,600</u>	<u>\$228,900</u>	<u>\$239,400</u>	<u>\$251,500</u>	<u>\$268,700</u>	<u>\$287,700</u>	<u>\$1,351,900</u>
Less Institutional Cost Sharing--								
(a) Professor Stachel's Salary & Fringe Ben.	(\$ 15,200)	\$ --	(\$ 42,000)	(\$ 48,700)	(\$ 52,100)	(\$ 55,800)	(\$ 59,700)	(\$ 273,500)
(b) Indirect Costs	(6,800)	(200)	(9,700)	(11,300)	(12,000)	(12,800)	(13,800)	(66,600)
(c) All Other	(33,100)	(2,100)	--	--	--	--	--	(35,200)
	<u>(\$ 55,100)</u>	<u>(2,300)</u>	<u>(\$ 51,700)</u>	<u>(\$ 60,000)</u>	<u>(\$ 64,100)</u>	<u>(\$ 68,600)</u>	<u>(\$ 73,500)</u>	<u>(\$ 375,300)</u>
Amounts to be Requested from Governmental Agencies	<u>\$ --</u>	<u>\$ 18,300</u>	<u>\$177,200</u>	<u>\$179,400</u>	<u>\$187,400</u>	<u>\$200,100</u>	<u>\$214,200</u>	<u>\$ 976,600</u>
Tentative Distribution of Amounts to be Requested from Governmental Agencies--								
National Science Foundation	\$ --	\$ 18,300	\$129,100	\$151,900	\$132,400	\$168,500	\$151,100	\$ 751,300
National Endowment for the Humanities	--	--	48,100	27,500	55,000	31,600	63,100	225,300
	<u>\$ --</u>	<u>\$ 18,300</u>	<u>\$177,200</u>	<u>\$179,400</u>	<u>\$187,400</u>	<u>\$200,100</u>	<u>\$214,200</u>	<u>\$ 976,600</u>

PRINCETON UNIVERSITY PRESS

THE COMPLETE WRITINGS OF ALBERT EINSTEIN
Research Grant Proposal Budget
Notes to Budget

1. Professor Stachel, the Editor, has been on leave from Boston University since January 15, 1977. Beginning February 1, 1978, he is expected to become a member of the Princeton University faculty. During his term of leave from Boston University, Princeton University Press will reimburse Boston University for both his salary and fringe benefits, which are calculated at the rate of 15.5% of his salary. Beginning February 1, 1978, Princeton University is expected to pay both the salary and fringe benefits of Professor Stachel. For budgeting purposes, Princeton University's current approved fringe benefit rate for government contracts (21.5%) was used.
2. The Associate Editor, budgeted to start October 1, 1977, might also be on leave initially; if so, salary and fringe benefit arrangements will be similar to those for Professor Stachel. For budgeting purposes, fringe benefits were also calculated at 21.5% of salary. The budget salary is estimated for a senior person; a junior person would receive less, somewhere between \$20,000 and \$25,000 in salary.
- 3,4,5. One Assistant Editor is expected to be added to the staff around July 1, 1977, and a second Assistant Editor on January 1, 1978. These two editors plus a full-time secretary (already at work), as well as a part-time secretary expected to be engaged on January 1, 1978, will be regular employees of Princeton University Press, and will come under the Press's fringe benefit program. For budgeting purposes, fringe benefits are calculated at 18.8% of salary, based on the Press's actual experience for the fiscal year ended July 31, 1976. The rate will be reviewed and adjusted annually.

6. Special consulting editors will be needed from time to time, though exact needs are difficult to anticipate. For example, it would be desirable to arrange for a specialist in science policy to go through the Einstein Papers and annotate them for the use of the Editor. It will also be important to get temporary assistance from specialists in the history of development of general relativity, statistical mechanics, quantum theory, the Weimar period in Germany, and so forth. For budgeting purposes, it was figured that one senior person would be engaged for a period of six months each year. The \$18,000 figure used for 1978 is based on an annual salary of \$30,000 plus fringe benefits of 20%. Here again it is expected that the salary and fringe benefit arrangement will be similar to that of Professor Stachel during his leave from Boston University.
7. Graduate students on a full or part-time basis will be used for possible semi-routine work. Budget provides for the equivalent of one full-time person.
8. A computer programmer is budgeted for 10 weeks at a weekly salary of \$200 a week to design and set up a computer index system.
9. Members of the Editorial Committee are expected to be brought to Princeton to provide expert guidance. They will be paid an honorarium plus travel. The 1977 budget provides for six persons visiting Princeton during the six month period, each for two days at an honorarium of \$100 a day plus \$300 travel. In 1978 and succeeding years, six persons were figured to visit Princeton twice annually. Since about half the Committee members will be scientists or philosophers, and half historians or editors, we are asking NSF and NEH each for one-half of the total cost.

10. The staff, especially the Editor and the Associate Editor, will need to travel to visit various scholars, archives, libraries, and other sources of information, both in this country and in Europe. It is essential to search for new material, to check copies against originals, and to interview correspondents and others who knew Einstein.

With respect to foreign travel, two one month trips are anticipated for 1978 and 1979. In the years 1980-82, trips of one month duration are anticipated each year.

With respect to domestic travel, costs are difficult to budget at this time, though it is reasonably certain that trips will be made to California and Illinois, among others. Domestic travel is estimated at one-half of foreign.

11. To avoid undue handling of the originals, it is necessary to make full-size copies of the entire Einstein archive. Sixty-one reels at \$70 per reel are being photocopied. In addition, duplication of published articles for the working library will be necessary. Again, expenses are expected to be heaviest in the first year. Also, a certain amount of photocopying of originals will be necessary in cases where the microfilm itself is illegible.

12. A bibliography and small working library of materials for the editing of the papers is being assembled. Only those publications needed frequently will be purchased. Large costs are anticipated only in the early years. The Princeton University and the Institute for Advanced Study libraries will be used extensively.

13. Because it will be necessary to acquire rights to letters written to Einstein and possibly some other rights, there will be some expenses of this kind. At this point it is impossible to estimate how much will be needed. Special funds may need to be raised.

14. The estimated computer time is for the purpose of setting up the computerized index system and running printouts from it. In 1977 6 1/4 hours of computer are expected to be needed at the rate of \$400 per hour, the current night rate charged by the computing center of Princeton University (the day rate is \$655 per hour). In subsequent years, the budget allows for one hour of computer time, at the night rate.
15. Details on telephone, office supplies, and postage are as follows:

<u>Period</u>	<u>Telephone</u>	<u>Office Supplies</u>	<u>Postage</u>	<u>Total</u>
7/1/77 - 11/15/77	\$ 600	\$ 800	\$ 400	\$ 1,800
11/16/77 - 12/31/77	200	200	100	500
Year Ended 12/31/				
1978	2,200	1,100	700	4,000
1979	2,000	1,200	800	4,000
1980	2,100	1,300	900	4,300
1981	2,300	1,400	900	4,600
1982	<u>2,500</u>	<u>1,500</u>	<u>1,000</u>	<u>5,000</u>
	<u>\$ 11,900</u>	<u>\$ 7,500</u>	<u>\$ 4,800</u>	<u>\$24,200</u>

Telephone expense in 1978 is budgeted as follows: installation of five phones (\$400); service charge (\$800); long-distance calls (\$1,000), for a grand total of \$2,200.

16. The Einstein Office will be located either at Princeton University Press or at the Institute for Advanced Study. Four or five offices will be needed. For budgeting purposes, the cost of space is an integral part of the indirect cost allocation of line-item 19.
17. The permanent office equipment purchases totaling \$1,200 are represented by the following:

Microfilm Reader	\$ 500
Reader Readex	400
Disc Pack for Computer	<u>300</u>
	<u>\$1,200</u>

The expendable office equipment totaling \$1,000 is made up of file boxes, waste baskets, file drawers, staplers, scissors, files, and miscellaneous chairs.

18. The contract with Professor Stachel provides for \$2,000 toward moving expenses.
19. The indirect cost allocation percentage (equal to 21% of salary for 1977 and 28% in 1978 and thereafter) was developed out of historical and projected experience at Princeton University Press during the three years ended July 31, 1978, and is further based on the assumption that the staff will be housed at Princeton University Press, beginning January 1, 1978. The percentage used for the six months ended December 31, 1977 is lower because it is unlikely that space charges will be incurred before January 1, 1978. Here is a broad breakdown of the composition of the 28%:

Administrative and Accounting Salaries	12.5%
Space Cost	6.7
All Other General and Administrative Expenses (excludes stationery and supplies, postage, telephone, which are all treated as direct costs. Also, excludes non-allowable expenses: interest expense and contributions)	<u>8.8</u>
	<u>28.0%</u>

Since our Press has never established an indirect cost rate, the National Science Foundation is being requested to make arrangements with the appropriate federal negotiating agency so one can be established. Accordingly, we would like to be audited as soon as possible.

Note: Throughout the budget, a 7% annual inflation factor has been taken into account.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget For One and One-Half Months Ended December 31, 1977

Budget Category History of Philosophy and Science

	<u>NSF Funded Man-Months Calendar</u>	<u>Proposed Amount</u>
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		
<u>John Stachel</u>	<u>12</u>	-\$ 4,400
b. Faculty Associates:		
<u>Sub-Total</u>		<u>\$ 4,400</u>
2. Other Personnel		
a. Research Associates:		
<u>One Associate Editor (Not yet named)</u>	<u>12</u>	\$ 1,000
<u>One Assistant Editor (Not yet named)</u>	<u>12</u>	3,800
<u>Consulting Editor</u>		
		<u>\$ 4,800</u>
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
<u>One Full-Time Equivalent</u>		\$ 700
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
<u>One Full-Time</u>		\$ 1,300
f. Technical, Shop & Other:		\$
<u>Total Salaries and Wages</u>		<u>\$ 11,200</u>
B. FRINGE BENEFITS:		1,800
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		<u>\$ 13,000</u>
D. EQUIPMENT:		\$
<u>Total Equipment</u>		<u>\$</u>
E. MATERIALS AND SUPPLIES		\$ 200
F. TRAVEL:		
1. Domestic		\$
2. Foreign		
<u>Total Travel</u>		<u>\$</u>
G. PUBLICATION COSTS		\$ 200
H. COMPUTER COSTS		\$
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 1,000
2. Photo-duplication		1,400
3. Telephone and Postage		300
<u>Total Other Costs</u>		<u>\$ 2,700</u>
J. TOTAL DIRECT COSTS		<u>\$ 16,100</u>

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget For One and One-Half Months Ended December 31, 1977

K. INDIRECT COSTS:	
1. On Campus:	
<u>21% of Salaries</u>	\$ 2,200
2. Off Campus:	
<u>Total Indirect Costs</u>	<u>\$ 2,200</u>
L. TOTAL COSTS	\$ 18,300
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (All Institutional Cost-Sharing)	<u>2,300</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$ 20,600</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1978

Budget Category History of Philosophy and Science

	<u>NSF Funded Man-Months Calendar</u>	<u>Proposed Amount</u>
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		
<u>John Stachel</u>	<u>12</u>	\$ 3,100*
b. Faculty Associates:		
Sub-Total		<u>\$ 3,100</u>
2. Other Personnel		
a. Research Associates:		
One Associate Editor (Not yet named)	<u>12</u>	\$ 32,100
One Assistant Editor (Not yet named)	<u>12</u>	16,000
Consulting Editor		<u>\$ 48,100</u>
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
One Full-Time Equivalent	<u>12</u>	\$ 6,000
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
One Full-Time; One Half-Time	<u>12</u>	\$ 16,100
f. Technical, Shop & Other:		\$
Total Salaries and Wages		<u>\$ 73,300</u>
B. FRINGE BENEFITS:		13,400
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		<u>\$ 86,700</u>
D. EQUIPMENT:		
Micro-Film Reader		\$ 500
Reader Index		400
Disc Pack for Computer		300
Total Equipment		<u>\$ 1,200</u>
E. MATERIALS AND SUPPLIES		<u>\$ 2,100</u>
F. TRAVEL:		
1. Domestic		\$ 3,000
2. Foreign		6,000
Total Travel		<u>\$ 9,000</u>
G. PUBLICATION COSTS		<u>\$ 1,100</u>
H. COMPUTER COSTS		<u>\$ 400</u>
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 2,200
2. Photo-duplication		3,000
3. Telephone and Postage		2,900
Total Other Costs		<u>\$ 8,100</u>
J. TOTAL DIRECT COSTS		<u>\$ 108,600</u>

*Month of January 1978 only. Remainder of 1978 paid by Princeton University.

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1978

K. INDIRECT COSTS:	
1. On Campus:	
<u>28% of Salaries</u>	\$ 20,500
2. Off Campus:	
Total Indirect Costs	<u>\$ 20,500</u>
L. TOTAL COSTS	\$129,100
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (Includes <u>\$51,700</u> of Institutional Cost-Sharing)	<u>99,800</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$228,900</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1979

Budget Category History of Philosophy and Science

	<u>NSF Funded Man-Months Calendar</u>	<u>Proposed Amount</u>
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		\$
b. Faculty Associates:		
Sub-Total		\$
2. Other Personnel		
a. Research Associates:		
One Associate Editor (Not yet named)	12	\$ 34,300
One Assistant Editor (Not yet named)	12	17,200
Consulting Editor	12	16,100
		\$ 67,600
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
One Full-Time Equivalent		\$ 6,500
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
One Full-Time; One Half-Time		\$ 17,100
f. Technical, Shop & Other:		\$
Total Salaries and Wages		\$ 91,200
B. FRINGE BENEFITS:		17,200
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		\$108,400
D. EQUIPMENT:		\$
Total Equipment		\$.
E. MATERIALS AND SUPPLIES		\$ 2,100
F. TRAVEL:		
1. Domestic		\$ 3,200
2. Foreign		6,400
Total Travel		\$ 9,600
G. PUBLICATION COSTS		\$ 600
H. COMPUTER COSTS		\$ 400
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 2,400
2. Photo-duplication		1,000
3. Telephone and Postage		1,900
Total Other Costs		\$ 5,300
J. TOTAL DIRECT COSTS		\$126,400

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1979

K. INDIRECT COSTS:	
1. On Campus:	
<u>28% of Salaries</u>	\$ 25,500
2. Off Campus:	
<u>Total Indirect Costs</u>	<u>\$ 25,500</u>
L. TOTAL COSTS	\$151,900
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (Includes <u>\$60,000</u> of Institutional Cost-Sharing)	<u>87,500</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$239,400</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1980

Budget Category History of Philosophy and Science

	<u>NSF Funded Man-Months Calendar</u>	<u>Proposed Amount</u>
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		\$
b. Faculty Associates:		\$
Sub-Total		\$
2. Other Personnel		
a. Research Associates:		
One Associate Editor (Not yet named)	12	\$ 36,800
One Assistant Editor (Not yet named)	12	18,400
Consulting Editor		\$ 55,200
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
One Full-Time Equivalent		\$ 7,000
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
One Full-Time; One Half-Time		\$ 18,400
f. Technical, Shop & Other:		\$
Total Salaries and Wages		\$ 80,600
B. FRINGE BENEFITS:		14,900
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		\$ 95,500
D. EQUIPMENT:		\$
Total Equipment		\$
E. MATERIALS AND SUPPLIES		\$ 1,300
F. TRAVEL:		
1. Domestic		\$ 1,800
2. Foreign		3,500
Total Travel		\$ 5,300
G. PUBLICATION COSTS		\$ 600
H. COMPUTER COSTS		\$ 500
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 2,600
2. Photo-duplication		1,100
3. Telephone and Postage		3,000
Total Other Costs		\$ 6,700
J. TOTAL DIRECT COSTS		\$109,900

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1980

K. INDIRECT COSTS:	
1. On Campus:	
<u>28% of Salaries</u>	\$ 22,500
2. Off Campus:	

Total Indirect Costs	<u>\$ 22,500</u>
L. TOTAL COSTS	\$ 132,400
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (Includes <u>\$64,100</u> of Institutional Cost-Sharing)	<u>119,100</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$ 251,500</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1981

Budget Category History of Philosophy and Science

	NSF Funded Man-Months Calendar	Proposed Amount
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		\$
b. Faculty Associates:		
Sub-Total		\$
2. Other Personnel		
a. Research Associates:		
One Associate Editor (Not yet named)	12	\$ 39,300
One Assistant Editor (Not yet named)	12	19,700
Consulting Editor	12	18,400
		\$ 77,400
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
One Full-Time Equivalent		\$ 7,500
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
One Full-Time; One Half-Time		\$ 19,700
f. Technical, Shop & Other:		\$
Total Salaries and Wages		\$104,600
B. FRINGE BENEFITS:		19,600
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		\$124,200
D. EQUIPMENT:		\$
Total Equipment		\$
E. MATERIALS AND SUPPLIES		\$ 1,400
F. TRAVEL:		
1. Domestic		\$ 1,800
2. Foreign		3,600
Total Travel		\$ 5,400
G. PUBLICATION COSTS		\$ 700
H. COMPUTER COSTS		\$ 500
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 2,700
2. Photo-duplication		1,100
3. Telephone and Postage		3,200
Total Other Costs		\$ 7,000
J. TOTAL DIRECT COSTS		\$139,200

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1981

K. INDIRECT COSTS:	
1. On Campus:	
<u>28% of Salaries</u>	\$ 29,300
2. Off Campus:	
<u>Total Indirect Costs</u>	<u>\$ 29,300</u>
L. TOTAL COSTS	\$ 168,500
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (Includes <u>\$68,600</u> of Institutional Cost-Sharing)	<u>100,200</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$ 268,700</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1982

Budget Category History of Philosophy and Science

	<u>NSF Funded Man-Months Calendar</u>	<u>Proposed Amount</u>
A. SALARIES AND WAGES:		
1. Senior Personnel:		
a. (Co) Principal Investigator:		\$
b. Faculty Associates:		
Sub-Total		\$
2. Other Personnel		
a. Research Associates:		
One Associate Editor (Not yet named)	12	\$ 42,100
One Assistant Editor (Not yet named)	12	21,000
Consulting Editor		
		<u>\$ 63,100</u>
b. Non-Faculty Professionals:		\$
c. Graduate Students:		
One Full-Time Equivalent		\$ 8,000
d. Pre-Baccalaureate Students:		\$
e. Secretarial-Clerical:		
One Full-Time; One Half-Time		\$ 21,100
f. Technical, Shop & Other:		\$
Total Salaries and Wages		<u>\$ 92,200</u>
B. FRINGE BENEFITS:		16,900
C. TOTAL SALARIES, WAGES AND FRINGE BENEFITS		<u>\$109,100</u>
D. EQUIPMENT:		\$
Total Equipment		\$
E. MATERIALS AND SUPPLIES		<u>\$ 1,500</u>
F. TRAVEL:		
1. Domestic		\$ 1,900
2. Foreign		3,900
Total Travel		<u>\$ 5,800</u>
G. PUBLICATION COSTS		<u>\$ 700</u>
H. COMPUTER COSTS		<u>\$ 600</u>
I. OTHER COSTS:		
1. Consultation Expenses (One half of total cost)		\$ 2,900
2. Photo-duplication		1,200
3. Telephone and Postage		3,500
Total Other Costs		<u>\$ 7,600</u>
J. TOTAL DIRECT COSTS		<u>\$125,300</u>

(Continued)

THE COMPLETE WRITINGS OF ALBERT EINSTEIN

Research Grant Proposal Budget Year Beginning January 1, 1982

K. INDIRECT COSTS:	
1. On Campus:	
<u>28% of Salaries</u>	\$ 25,800
2. Off Campus:	
<u>Total Indirect Costs</u>	<u>\$ 25,800</u>
L. TOTAL COSTS	\$ 151,100
M. TOTAL CONTRIBUTIONS FROM OTHER SOURCES (Includes <u>\$73,500</u> of Institutional Cost-Sharing)	<u>136,600</u>
N. TOTAL ESTIMATED PROJECT COST	<u>\$ 287,700</u>
O. TOTAL RESIDUAL FUNDS	<u>NONE</u>

Princeton University Press will cost-share in accordance with NSF policy.

NEH-2 (5/80)

Form Approved: BOB 128-R0003

NATIONAL ENDOWMENT FOR THE HUMANITIES Division of Research Grants Washington, D.C. 20506 Telephone: (202) 382-5857, 1072 RESEARCH GRANT APPLICATION FACE SHEET		Date Received	Log Number
		1. Principal Investigator (name & address) John Stachel Institute for Advanced Study Princeton, New Jersey 08540 Telephone: Office (609 924-4400 Ext. 225 Home (609 924-5567)	
2. Institution (name & address) Princeton University Press 41 William Street Princeton, New Jersey 08540		3. Authorizing Official (name & title) Herbert S. Bailey, Jr., Director Princeton University Press Telephone: (609) 452-4902 (person named here must sign in item 12)	
4. Budget Outright <u>\$130,600</u> Gifts Plus Matching \$ -- TOTAL REQUEST FROM NEH <u>\$130,600</u> Institutional Cost-Sharing <u>\$175,800</u> (Non-Federal Contributions) TOTAL PROJECT COST <u>\$719,800</u>		5. Payee (name & title of person) William C. Becker Associate Director and Controller Princeton University Press Princeton, New Jersey 08540 Telephone: (609 452-4911)	
6. Dates of Requested Grant Period January 1, 1978 to December 31, 1980		7. List Other Government Agencies or Private Foundations Considering this Proposal National Science Foundation	
8. Project Title The Complete Writings of Albert Einstein			
9. FOR AGENCY USE ONLY			
10. List Persons Other than PI Who Have Been in Touch with NEH about this Project Herbert S. Bailey, Jr.		11. If This is a Renewal Request to NEH, Include Title and Number of Previous Grant --	
12. Signatures of Principal Investigator and Authorizing Official _____ Date <u>May 13, 1977</u> <u>John Stachel</u> _____ <u>Herbert S. Bailey Jr.</u>			

PRINCETON UNIVERSITY PRESS
Budget Request Submitted to National Endowment for the Humanities
THE COMPLETE WRITINGS OF ALBERT EINSTEIN
Covering the Three Years Ended December 31, 1980

	<u>Requested Of NEH</u>	<u>Institutional Cost-Sharing</u>	<u>Project</u>
<u>Salaries and Fringe Benefits</u>			
Principal Investigator (John Stachel)--			
Salary	\$ --	\$ 117,400	\$117,400
Fringe Benefits	--	25,400	25,400
Assistant Editor (Not Yet Named*)--			
Salary	51,600	--	51,600
Fringe Benefits	9,600	--	9,600
Consulting Editors--			
Salary	32,200	--	32,200
Fringe Benefits	<u>6,400</u>	<u>--</u>	<u>6,400</u>
	\$ 99,800	\$ 142,800	\$242,600
<u>Other Editorial Costs</u>			
Consultation Expenses for Members of Editorial Committee Working on Cultural Materials (Three of Six Members)	7,300	--	7,300
<u>Other Expenses</u>			
Indirect Costs--28% of Salaries	<u>23,500</u>	<u>33,000</u>	<u>56,500</u>
	<u>\$ 130,600</u>	<u>\$ 175,800</u>	<u>\$306,400</u>

*Expected to be hired on or around July 1, 1977.