INDEPENDENCE MALL WEST, PHILADELPHIA, PA. 19105 TELEPHONE (215) 592-3000

ROHM AND HAAS COMPANY

January 25, 1972

Miss Elizabeth K. Ralph
Museum Applied Science Center
for Archeology
University Museum
University of Pennsylvania
Thirty-Third and Spruce Streets
Philadelphia, Pa. 19104

Dear Beth:

When I visited the Research Laboratory for Archeology and the History of Art in Oxford on January 13, Dr. Hall and Dr. Aitken received me most hospitably. Dr. Hall invited me to his home for lunch.

They are greatly interested in your and Dr. Michael's new book on "Dating Techniques for the Archaeologist" and I have sent them each a copy.

With best wishes.

Sincerely,

F. O. Haas

FOH:pm

CC: Dr. Froelich Rainey

MIT was supposed to send copy to Aitken.

April 26, 1974

Dear Otto:

I am very pleased that you are willing to take over the Directorship of the Museum Applied Science Center for Archaeology and, with this I am most pleased to appoint you officially at this time as the Director to take over the your convenience, sometime in May.

Although I know you will discuss this at some length with Fro and know a good deal about how the Center operates, I am enclosing a statement of the responsibilities of the job as he sees it. You know I am sure, that the Center has been financed by the National Science Foundation for the past several years and that there is a tentative commitment to continue that financing for the next three years if all goes well. There is also a grant from the National Science Foundation's Earth Sciences Grant to support research in the carbon-14 laboratory. So, there is currently a budget of about $150,000 a year. Additional grants from other organizations and, occasionally, from industry are made for special kinds of development or research.

MASCA is unique in this country, but in some manner parallels the work of the Archaeological Research Center at Oxford. It is my understanding that both laboratories are in constant contact and are carrying on this kind of research in close cooperation. As you know, new techniques like carbon-14 and thermoluminescence have not only revolutionized archaeology but our understanding of the whole history of human beings. New techniques are playing a major role in the changing nature of archaeology in our generation and, hence, this division of the University Museum is a very significant part of our whole field of research. Personally, I hope you will enjoy a working part of this new development and will find satisfaction in the results and the research.

All best wishes,

Howard C. Petersen

TO : Mr. Howard C. Petersen

FROM : Froelich Rainey

DATE : April 26, 1974

SUBJECT : Duties of the Director of the Applied Science Center

You have a memo from me of November 1, 1973 which gives the background of the Applied Science Center and also spells out the duties of the Director. Mrs. Levinsky probably has that in her files. But here is a more concise statement about the duties alone.

The Directorship of the Applied Science Center is primarily an executive/management task, and directing and over-seeing ten regular employees of MASCA and various research associates. Since the Museum Applied Science Center for Archaeology is principally concerned with the development of new archaeological techniques, the director as well as members of the staff are involved in scouting out what's happening in other universities and commercial laboratories that might be adaped and re-designed to fit new techniques in archaeology. For example: I recently read of new radar equipment being developed by companies in Massachusetts and New York which could very well be adapted to archaeological research underground. Normally I would

Have made contact with these people myself, accompanied by Bruce Bevan of MASCA who is working on such inst
Bevan of MASCA who is working on such instruments in order to determine whether the equipment could be adapted to archaeology and, if so, whether we could work out some arrangement with the company to modify the instrument for our use. Actually Bruce Bevan is doing this alone but I doubt if he will have the experience to work out the arrangements with the company if the instruments look promising.

The Director certainly should keep an eye on what's going on presently in the laboratories and also as to what's being dug up in the information center about new techniques and then in consultation with members of the staff decide on what new research should be initiated and what presently underway should be continued. With adequate time the Director should get around to other laboratories particularly in the city and to make personal contact with personnel in other laboratories in order to encourage research in our direction.

There is also a particular kind of executive decision which must be made continually. MASCA is funded primarily to develop new tedhniques, but our field directors want to use the laboratories as a kind of service organization to obtain dating, to make analyses of materials and so forth. Thus, the Director must work both with the field directors and the staff of MASCA to decide how much of

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their time is in servicing our own expeditions and how much in developing new techniques. In this connection we have been trying to work out here with the field directors and the professors of archaeology some more successful way of training archaeological students here in the use of these new techniques.

As in all executive jobs, there is a familiar problem of coordinating the work of these various people in different fields of research so that there is close cooperation and a congenial atmosphere. Above all, the Director should encourage the staff as a whole to scout out new fields for development.

DRAFT

MEMORANDUM

TO : Mr. Howard C. Petersen

FROM : Froelich G. Rainey

DATE : November 1, 1973

RE : Directorship of the Applied Science Center for Archaeology (MASCA)

Here is the definition of the job as Director of the Applied Science Center which we discussed ~~with~~ with regard to Otto Haas.

I organized the Applied Science Center in 1961 with myself as Director and Beth Ralph as Associate Director and with funds supplied by the National Science Foundation. The contributions by the National Science Foundation have continued since that time but it is now funded by the Special Projects Branch of the Foundation with funds for two years and a tentative commitment for the next three years if all goes well. Moreover, there is an additional grant from the National Science Foundation Earth Sciences Branch to support research in the C-14 method so that the total is about $150,000 a year. Occasionally additional grants are obtained for special projects as, for example, a Young Executives Foundation which has contributed money for a study of Egyptian dating.

The work of the Center can be described under three headings; one, improvement and development of new dating techniques such as thermoluminescence dating, the corrections of the radio-carbon dating and new experiments with a method of dating metals. Two, the development of instruments for archaeological search such as the cesium magnetometer and methods of remote sinsing from the air. And, three, the collection

and dissemination of information on new scientific techniques in archaeology. But there are also peripheral activities such as the search for a way to preserve adobe or mud brick buildings, new methods of identifying trace metals and detailed study of the origin of metals.

We now have ten people employed, seven regularly paid and three students part-time (one student to be added when we can find the right one).

All these people work either in the MASCA laboratory in the University Museum or at the radio carbon laboratory in the Physics building. In addition, the retired head of the Metallurgy Department, Bob Maddin, does some of his research in the metallurgical labs in that building.

As for the duties of the Director, they are essentially to oversee all branches of the research going on, to initiate new types of research on such techniques through contacts with other universities and commercial firms which are developing techniques that may be applied to archaeology, the selection of personnel, contacts with other laboratories, commercial or university, which are doing related research, the publication of non-technical articles for the general public such as my argicle for Archaeology to be in the next issue, reports to the press when we are announcing new discoveries in this field, public lectures particularly to research groups in the various laboratories, the coordination of our own field directors with people in MASCA so that we can experiment on our own excavations, and, premarily to design the balance between developmental research and the scientific servicing of our own expeditions. This last point is important because our money comes from agencies interested in the development of new techniques while our staff wants to use the laboratories

as a kind of service organization to obtain dating, to make analyses and so forth. There is another aspect still to be worked out which is the method of training students in this field.

As it actually works out at present, I leave most of the work of the Director to Beth Ralph and act primarily in coordinating the various aspects of this research and to keep an overall watch of the functioning of the whole laboratory. However, I am sure that a full time Director maintaining an office in ASCA and with his finger on all the various aspects of the research could do a much better job. Moreover, with Otto's training I think he'd have a better understanding of the scientific details that I do even after ten years of following this business. Actually, I think this whole thing would work much better with a full time Director on the spot who has a lot of direct contacts with other laboratories, since our main goal is to scout new techniques which can be applied to archaeology. Moreover, because of certain personalities involved, I think the morale in the shop would be much better with a full time Director located there.

HOWARD C. PETERSEN
135 SOUTH BROAD STREET
PHILADELPHIA 19109

May 2, 1974

Dear Fro:

I have sent Otto the attached letter together with a draft of letter I propose to write to him which you will note is somewhat changed from the draft you sent me. It struck me this was the way to handle it.

I will keep you advised.

Sincerely,

Howard

8168.

Dr. Froelich Rainey
The University Museum
33rd & Spruce Streets
Philadelphia, Pennsylvania 19174

HOWARD C. PETERSEN
135 SOUTH BROAD STREET
PHILADELPHIA 19109

May 2, 1974

Dear Otto:

I am enclosing a draft of a letter which I would write to you if you approve it. Also enclosed is a description by Fro of the role of the Director of the Museum Applied Science Center for Archaeology.

I know that you are anxious that your duties and responsibilities be well defined, and with this I am in agreement. It is, however, difficult to be too precise at the onset of a new relationship. I would be hopeful that the attached papers would be satisfactory to you. However, I would be amenable to any suggestions you might make before I formally address a letter to you.

All best wishes.

Sincerely,

Howard -

Dr. F. Otto Haas
Rohm and Haas Co.
Independence Mall West
Philadelphia, Pennsylvania 19105

COPY

THE UNIVERSITY MUSEUM
UNIVERSITY OF PENNSYLVANIA
THIRTY-THIRD AND SPRUCE STREETS
PHILADELPHIA, PA. 19174
CABLE ADDRESS "ANTIQUE"
TELEPHONE: EVERGREEN 6-7400
(AREA CODE 215)

File

May 8, 1974

Dr. F. Otto Haas
Rohm and Haas Company
Independence Mall West
Philadelphia, Pennsylvania 19105

Dear Otto:

As Chairman of the Board of Managers of the University Museum, I am pleased to appoint you Director of the Museum Applied Science Center for Archaeology. I understand that you will assume this position on May 15.

Although I know you will discuss this at some length with Fro and that you already know a good deal about how the Center operates, I am enclosing a statement of the responsibilities of the job as he sees it. I would add to his memo, the important role of budgeting and budget control. I would also add that to integrate the work of the Center with the rest of the Museum, you should report to the Director.

You know, I am sure, that the Center has been financed by the National Science Foundation for the past several years and that there is a tentative commitment to continue that financing for the next three years if all goes well. There is also a grant from the National Science Foundation's Earth Sciences Grant to support research in the carbon-14 laboratory. So, there is currently a budget of about $150,000 a year. Additional grants from other organizations and, occasionally, from industry are made for special kinds of development or research. You would, of course, want to keep these relations warm.

MASCA is unique in this country, but in some manner parallels the work of the Archaeological Research Center at Oxford. It is my understanding that both laboratories are in constant contact and are carrying on this kind of research in close cooperation. As you know, new techniques like carbon-14 and thermoluminescence have not only revolutionized archaeology in our generation and, hence, this division of the University Museum is a very significant part of our

whole field of research.

Personally, I hope you will enjoy a working part of this new development and will find satisfaction in the results and the research.

All best wishes.

Sincerely,

Howard Peterson

NEWS

UNIVERSITY of PENNSYLVANIA
NEWS BUREAU, Franklin Building
3451 Walnut St. 16, Philadelphia 19174

For release:
Sunday, May 19, 1974

For information, call:
Don Fey
(215) 594-8721

Dr. F. Otto Haas, vice-chairman of the board of the Rohm and Haas Company, has been appointed Director of the Museum Applied Science Center for Archaeology (MASCA) at the University Museum of the University of Pennsylvania, it was announced today by Howard C. Petersen, chairman of the Museum's Board of Managers. The appointment is effective immediately.

Dr. Haas, who is a University Trustee and vice chairman of the Museum board, has maintained a longtime interest in the Museum's archaeological work. One of MASCA's main tasks is to take new technologies developed by commercial and scientific laboratories and adapt them for archaeological use.

"Dr. Haas' technological background as a chemist, coupled with his deep interest in archaeology, makes him particularly qualified for this responsibility," Mr. Petersen said.

Financed by grants from the National Science Foundation since 1962, MASCA has been under the personal direction of Dr. Froelich Rainey, director of the University Museum. Techniques developed under

(more)

his direction have revolutionized archaeological work in both the field and laboratory. Based on fundamental principles of physics, chemistry and related sciences, they include remote sensing of buried cities through satellite and aerial photography, the pinpointing of underground buildings and cities with electronic devices, and the dating of objects of antiquity and anthropological remains through radioactive analysis.

A few years ago, the fabulous lost city of Sybaris, sought in vain for nearly 100 years, was discovered in southern Italy under 20 feet of mud with the help of a MASCA device called a cesium magnetometer. With MASCA's help, equally important discoveries have been made in the coastal waters of Greece or buried under English farms. Current MASCA projects include looking for ways to preserve recently excavated mud-brick constructions in the Near East, and a study of ancient metals to discover their source and how they were made.

Dr. Haas, who is also the advisory board chairman for the University's Morris Arboretum in Chestnut Hill, is widely active in a broad range of community and University affairs. He is the director of the Philadelphia Society for the Preservation of Landmarks, and chairman of the Philadelphia Historical Commission. He is a member of the finance committee of the International Union Against Cancer, and, in 1971, was chairman of the Foundation Committee of the United Negro College Fund. He is also a member of the American Chemical Society and the American Philosophical Society, the nation's oldest learned society.

(more)

Born in 1915, he attended Amherst College and received his Ph.D. in organic chemistry from Princeton University. He joined his father's firm in 1940, and after service in the U.S. Navy in World War II, returned to Rohm and Haas. He was named company president in 1959 and its board chairman in 1969, a position he held until this year.

May 21, 1974

Dear Murray:

I am enclosing that news release about the appointment of Otto Haas to MASCA as I promised on the telephone. You will see that there is a bit of garbling on the account of what ASCA does, what with sensing various cities through satellite photography, but the account of Otto is all very good. He has taken over in his mild, quiet way and I urged him to go down and talk with you some time in the fall after we have put together the next proposal. You will find him a very attractive fellow and I believe he is going to be a very good thing for our Applied Science Center.

I am off to Ireland on Friday and then will open an excavation in Italy, but will return here in July.

All the best,

Sincerely,

Froelich Rainey
Director

Mr. Murray Aborn
National Science Foundation
Washington, D.C.

FR/c
Enclosure

HAAS

HOTEL CIPRIANI - VENEZIA

☎ 85.068 - 21.484 - 25.266
TELEX 41162

Oct 9, 1974

Dear Fra:

Thanks for your cable which I received in Jersey. I have written Dr Tita in the hope of seeing him when I pass through Zurich on the way back to Phila. I will be in the office Friday Oct 18 + will let you what happens

Regards,

Otto.

THE UNIVERSITY MUSEUM
UNIVERSITY OF PENNSYLVANIA
THIRTY-THIRD AND SPRUCE STREETS
PHILADELPHIA, PA. 19174
CABLE ADDRESS "ANTIQUE"
TELEPHONE: EVERGREEN 6-7400
(AREA CODE 215)

February 4, 1975

Dear Otto:

I am just now off for the Far East and should be back early in March. Enclosed are copies of the detailed plans for the first phase of the Museum renovation and for repair of the roof with budgets and so forth. The roof repair budget is being submitted to the Trustees of the University this week and maybe phased if they can't dig up the whole sum now.

As you will see, our cost for phase one is about 1.3 million and I have tentative commitments of $140,000 for the Endowment for the Humanities and, hopefully, $100-150,000 from the Kress Foundation. They are enthusiastic and will let us know be the end of February. Also, as you know, the sale of the Ming pots could bring as much as $500,000 but we just don't know what the condition of the market is. To complete this first phase by April 1976, we should sign the contracts for construction by the end of March.

On MASCA, Murray Aborn called this morning and said that the financial situation is not as desparate as he thought. We should get something like $100,000 from his division of the NSF if we cut the budget as he suggests. I'll be going over this with Beth before I leave. He says there are two delicate problems. One is that we have not given enough recognition to NSF in our publicity about MASCA. There is no reference to NSF in our newsletter, there are no references to them in the New York Times article and there was no reference to his division in our article in "Science". This has hurt us he says. The second thing is that the reviewers of our proposal were all sort of uneasy about the switch from me as Director of the project for all these years to you simply because you are not a member of the faculty of the University and all that sort of thing. He urges that we jerk around these titles someway so that I appear as still active in MASCA as the principal investigator and in the active direction. Would you think about that and see how we can meet that requirement.

Also, he says that the reviewers have great acclaim for the newsletter for the carbon 14 correction factor work, the prospecting metallurgy and so on. There is more concern about TL and even one suggestion that we have our people trained by some bird in Washington University in St. Louis who is a professional physicist. This is all absurb, of course, since Beth and Mark know more about TL than anybody else but it points to the need for other physicists in the program. In our phone conversation I suggested that Bill Stevens could fill that place for the time being but that eventually we'd need to get another physicist on the staff.

He proposes that we drop out of the next years budget the salary for a replacement for Carriveau asking Bill Stevens to act in this capacity for the next year or two and suggesting that eventually we get another physicist on the University payroll or supported by other funds outside of NSF.

In the next years budget we should include all the costs of the Information Center, the payment for Research Fellows, the salary of Mark Han, some equipment and operating expenses for the laboratory. For the second years budget we should exclude the salary of Mark Han and thus cut down a large amount of overhead paid to the University, hoping that we could get Mark on some other budget in NSF. Would you go over all this with Beth when you get back?

I have been talking with Bill Davenport about looking after the plans for renovating the Museum and the War or Peace exhibition. Bill is very much interested in what happens to museums and I would suggest that you talk to him in some detail about the up-coming job which you are trying to find somebody to fill. I think Bill really has a deep concern about what happens to museums and that is to us most important.

This surely is a bad time for me to be gone but it is exceedingly important that I pin down the oil money for our work in Southeast Asia if possible during February.

All the very best,

FR

Froelich Rainey
Director

January 28, 1976

Dr. E. Otto Haas
Vice-Chairman of the Board
Rohm and Haas Company
1102 PNB Building
Philadelphia, Pennsylvania 19108

Dear Dr. Haas:

We have received the information about Dr. Charles Horne and are passing on a copy of it to you.

We are looking foreward to seeing you for lunch at noon on February 6, 1976.

Sincerely yours,

Elizabeth K. Ralph