



PAHLAVI UNIVERSITY

College of Arts & Sciences

Shiraz , Iran



DEPARTMENT OF PHYSICS

Jan 10, 1977

Dr. Elizabeth Ralph
MASCA
The University Museum
University of Pennsylvania
Thirty-Third and Spruce St.
Philadelphia,
Pennsylvania 19174
U.S.A.

Dear Dr Ralph:

I had occasion to talk to Dr. W. Sumner this fall about physical survey methods used in archeology. He suggested that I talk to you, since we were considering offering such services here, However none of us have had experience in archeology and we were in need of some advice.

Perhaps it would be best if I outlined our situation. I work in a twenty man physics department. We have here four people with experience in magnetic resonance and electronic instrumentation. There were some pointed questions put to us about applied research, and it occurred to us that magnetic resonance had been used in archeology in recent years. In fact, Britain survey the ground before the construction of motor ways and other large projects quite regularly now.

At the same time our geology department has considerable equipment which has not been used at all. This is becoming on acute embarrassment to them. Among the equipment is a geo-Metrics magnetometer and several sets of geo resistance equipment. They are most anxious to put this to use.

A further connection is that the wife of one of our colleagues here works at the Asia Institute here and knew Dr. Sumner. Since you had made a survey for him I am now asking you for information about the best methods to extract archeological data from a survey. We have read several articles on resistivity surveys and magnetic surveys, but perhaps not the most important ones.



PAHLAVI UNIVERSITY

College of Arts & Sciences

Shiraz , Iran



DEPARTMENT OF PHYSICS

- 2 -

Are there any particularly important references on this subject that we should be sure to read?

It also appears that the commercial instruments here, while quite good, may not directly give the best data. The absolute value of the magnetic field or resistivity do not appear to be of any use. Differential methods seem to be of more interest. While we would, of course, start with the equipment on hand, were some other instrument particularly useful we might try to buy or build it later. In fact, the physics department part in this project would be more instrumentation than bulk survey so information about promising measuring techniques would be of great use to us. We have just modified a small hammer seismograph and in bench tests it appears to be quite good at locating hard surfaces a few meters under ground. So far we have not found any mention of such measurements but we have not looked too hard yet.

Well, I am not sure how much you are in a position to help us, but any suggestions would be appreciated: Literature references, particularly good equipment, or methods of extracting information from the data. We are familiar with the instrumentation but not the archeology. Hopefully, this request wont put you to too much trouble, and with your permission we shall write you again should specific questions arise during the work.

Yours truly,

Dr. R. Morehouse

If the anomalies are large, as they were at Bill Sumner's site at Tepe Malyan, a differential system is not needed. Direct recordings of the changes in magnetic intensity are sufficient.

We have found that the geophysical survey must be run or at least directed by a physicist, electronics engineer, or equivalent (with the help of two or three local workmen). He is, therefore, on the spot to make corrections, to plot the contours of equal intensity (at the end of the field day) and to **January 25, 1977** lead found to the archaeologist who can then test them by excavation.

Dr. R. Morehouse
Paklavi University answered some of your questions, and do not
College of Arts & Sciences
Department of Physics
Shiraz, Iran

Dear Dr. Morehouse:

Sincerely yours,

Thank you for your letter of January 10th. In order to clarify one point, we think of magnetic resonance as NMR, etc., that is, laboratory research equipment, whereas we think of geophysical prospecting instruments simply as magnetometers.

Proton magnetometers made by GeoMetrics are among the best, and I think that it is possible to adapt them for differential measurements or at least into gradiometers with two sensors. Dr. Sheldon Breiner, President of GeoMetrics (395 Java Drive, Sunnyvale, California 94086) would be the best one to contact. Any type of resistance apparatus, to which four probes can be attached, is suitable.

Under separate cover, we are sending you articles as follows:

Ralph, E.K. Morrison, F. & O'Brien, D.P., "Archaeological Surveying Utilizing a High-Sensitivity Difference Magnetometer", Geoexploration 6(1968) 109-122.

Ralph, E.K., "Comparison of a Proton and a Rubidium Magnetometer for Archaeological Prospecting" Archaeometry 7(1965) 20-27.

MASCA Newsletter, Volume 7, no. 1(1971); Volume 9, no. 2 (1973)

Rainey, F.G. and Lerici, C.M., The Search For Sylvania 1960-1965, 1967.

For differential measurements, we prefer the Varian Cesium magnetometer (see reprint from Geoexploration). Ours is not available commercially in the U.S.A., but I understand that the Varian branch in Canada is manufacturing them - I do not have the address.



Indian and
Northern Affairs

Affaires indiennes
et du Nord

✓ Parks
Canada
Prairie Region

Parcs
Canada

Historic Sites
Main Floor
114 Garry Street
Winnipeg, Manitoba
R3C 1G1

November 2, 1976

*Bruce -
Please reply
vaguely*

Your file Votre référence

Our file Notre référence C84.05-1

Elizabeth K. Ralph
Museum Applied Science Center for Archaeology
The University Museum
33rd and Spruce Streets
University of Pennsylvania
Philadelphia, Pennsylvania 19174

I have read with interest Bruce Bevan's report titled "A Magnetic Survey at Les Forges du Saint-Maurice" and would like to inquire about having similar surveys accomplished at Ft. Walsh, in southwestern Saskatchewan, and Batoche, in central Saskatchewan, next summer. Our interest at each area lies in the historic townsites, each of which encompassed about 15 acres. We wish to obtain more specific ideas about where to excavate at these sites. Wooden structures originally existed at both places. There are virtually no surface impediments (recent garbage, weeds or bushes, overhead power lines) and almost no historic remains lie greater than 30 cm below the surface.

Please advise me if you are interested in pursuing this matter further. In the event you are not in a position to undertake it I would appreciate your recommending other persons or facilities to me.

Sincerely

Paul Donahue
for Director



Museum Applied Science Center for Archaeology

Froelch Rainey, Director

Elizabeth K. Ralph, Associate Director

THE UNIVERSITY MUSEUM • UNIVERSITY OF PENNSYLVANIA
33rd & SPRUCE STREETS • PHILADELPHIA, PENNSYLVANIA 19104
386-7400 (Area Code 215) Cable Address "Antique"

4 December 1976

Mr. Paul Donahue
Parks Canada, Prairie Region
Historic Sites
Main Floor
114 Garry Street
Winnipeg, Manitoba
R3C 1G1

Dear Mr. Donahue,

Dr. Ralph is busy now writing a grant proposal which will hopefully, among other things, provide the funds for some preventive maintenance and repair for our magnetometers; they've had a hard life. So I will try to answer your letter for her.

I've seen the information on ~~#1~~^{Ft} Walsh which Jim Sciscenti and Al Wilson sent us two years ago. There, we might be able to detect the burnt floors and iron objects as small as 1/3 kilogram. The geological background looks very favorable, but the direct detection of the wall foundation trenches is unlikely. One map indicates the possibility of a barbed wire fence nearby; if old discarded strands or segments are buried, we unfortunately can find those quite well too.

I suspect that, from your information, Batoche is quite similar, and that we will be able to ~~do~~^{do} similar mapping there.

If you have not seen the detailed report on Les Vieilles Forges, I can loan you a copy if you would like it. It will give a much better indication of the end result of a magnetic survey than the summary in the MASCA Newsletter.

Tentative surveys in Greece and Iran have our first priority because they have been under planning for a while. However, if the possibility of desired results at your two sites appears to you to be great enough, both Beth Ralph and I will be glad to investigate this survey with you in greater detail. Should we be unable to schedule the survey when it is convenient for you, I will get you information on building or renting a magnetometer or in locating someone else to do the survey.

Very best regards,

Bruce Bevan

Bruce Bevan

May 5, 1976

Dr. A.W. Patterson
418 Wycliffe Avenue
Houston, Texas 77079

Dear Dr. Patterson:

Occasionally we do accept outside samples for TL dating, but we have to charge \$250.00 per sample.

Worse than that is the fact that we may not be able to obtain reliable TL dates for burned flint. The main problem is that flints do not contain sufficient inherent natural radioactivity which is necessary to produce the TL. We have tried burned flints before and have failed.

Therefore, I recommend that you do not waste your money on TL dating.

Sincerely yours,

Elizabeth K. Ralph

418 Wycliffe
Houston, Texas 77079
May 2, 1976

Elizabeth K. Ralph
Associate Director
Applied Science Center
for Archaeology
The University Museum
University of Pennsylvania
33rd and Spruce Streets F1
Philadelphia, Pa. 19174

Dear Dr. Ralph:

I would like to ask if your organization accepts outside samples for TL dating of burned flint, and if not, could you direct me to someone that does? I am doing research on an archeological site in central Texas (Medina County site 41ME3) with a large lithic collection of possible Pleistocene age, with indications of pre-Clovis lithic technology. The nature of the surface geology seems to give little hope for samples for C-14 dating, but there are several pieces of heat treated flint.

This site is unique in that the large lithic collection enables a complete description of the technology, not usually possible in Pleistocene age sites. I can furnish a completed manuscript on this site, giving a detailed analysis and reasons for proposing pre-Clovis Pleistocene period affiliation.

Sincerely yours,

L. W. Patterson
L. W. Patterson

ASCA

HOLD FOR BETH

MEMORANDUM TO: Beth Ralph

DATE: May 8, 1965

FROM: Froelich Rainey

Papke was in to discuss seismic work - says we missed the real features in Arizona - I urged him to join you on the Carolina job in August. He will ~~pay~~ his expenses for a few days. Maybe he can teach us how to interpret this stuff.

We pay his expenses.

JFR

Seismic
Exploration
Service

841 LAKE DRIVE - Baltimore, Maryland 21217 - LA3-0053

301

LOUIS F. PAPKE

*Pa. sites
end of Aug.
1st wk. Sept.
\$150/day*

*Italy - instrument
for \$400*

April 14, 1953

Dr. J. O. Brew, Director
Peabody Museum of Archaeology and Ethnology
Harvard University
Cambridge 38, Massachusetts

Dear Dr. Brew:

Dr. Kidder has asked me to reply to your letter and tell about our experiences with a C 14 laboratory. I hope that I will be able to give you some information that will be helpful.

Materials for this laboratory were ordered in the fall of 1951. In October 1951, Dr. Libby generously allowed me to work in his laboratory at the Institute for Nuclear Studies, Chicago to learn the special techniques and to become more familiar with the equipment. Within a year our apparatus had been assembled and first calibration checks were made. Since then progress has been delayed by two major things. The first was that my net count for modern carbon was low and not very consistent. I started with samples of green wood, then switched to seasoned wood and after many runs of different types of both, the green wood persists in giving a count which is, at least, 10% lower than the seasoned. I haven't been able to explain this, and I don't believe that other laboratories have encountered it, but it has consumed a considerable amount of time here.

The second obstacle was contamination. We have been fortunate in Philadelphia in that we haven't been in the direct path of most of the atomic bomb clouds. This type of contamination interrupts one's operations, but it can usually be removed by HCl treatment of the sample. We have had more difficulty with C 14 contamination from a local source. The nearby medical school uses C 14 isotopes abundantly and we believe that the amount that they send up their exhaust stack is just sufficient to cause an increased counting rate when absorbed by our carbon samples. There seems to be no way to prove that this is the cause, but it is the most plausible explanation for the type of contamination that we have been experiencing.

The contamination hazards are due mainly to the fact that carbon is such a good absorber. I don't think that any of the laboratories have had serious trouble with contaminated reagents or equipment with the exception of the counter materials which must be selected carefully and tested. Every precaution must, therefore, be taken to minimize exposure of the carbon to the air. In addition to those mentioned in Libby's book (Radiocarbon Dating, University of Chicago Press, 1952), I am now drying the carbon and even charcoal samples in a vacuum, and am experimenting with ways of grinding the carbon in water rather than

in the dry form.

The last two have been found necessary because of our nearby C 14 source. If the laboratory were located in the country, away from all sources, or were air-conditioned with good filtering, the contamination hazards would be reduced considerably. We are now making one of our rooms "dust-resistant" with simple window filters which may help.

I have assumed that you are going to use the geiger counter method with the sample in the form of carbon. I believe that several people are experimenting with scintillation counting methods which, when developed, will eliminate the carbon hazard and also be more sensitive. As far as I know, gas counting techniques have been found to be more troublesome and slightly less efficient.

The initial costs were as follows:

<u>ITEMS.</u>	<u>COSTS (7/1/51 - 6/30/52)</u>
Counting Equipment	\$2748.00
Counter Test Equipment	730.00
Iron Shielding	805.00
Carbon Processing and Counter Filling Equipment	3183.00
Reagents and Expendable Supplies	166.00
Miscellaneous Laboratory Equipment	204.00
Laboratory Furniture, Outlets, etc.	444.00
Travel, Phone, Shipping	208.00
Petty Cash	<u>92.00</u>
TOTAL	\$8580.00

The operating and equipment costs for this year (7/1/52 - 6/30/53) will be \$2700.00. In addition \$1250.00 is being spent to alter and equip our "dust resistant" room. Neither of these figures includes salary. Until the present time, I have been the only employee in the laboratory. This has reduced costs, but has made the development of the laboratory slower than necessary. For a laboratory with one counting set-up, sixty to eighty working hours per week are needed to keep the counters in continuous operation. One can then expect to process and count two samples per week.

I fear that I have described only our specific problems and have missed many that you would like to know about. I shall be glad to try to answer any questions that you might have.

Very sincerely yours,

Elizabeth K. Ralph
(In charge of C 14 laboratory)

EKR/awe

PEABODY MUSEUM
OF
ARCHAEOLOGY AND ETHNOLOGY
HARVARD UNIVERSITY
CAMBRIDGE 38, MASSACHUSETTS, U.S.A.

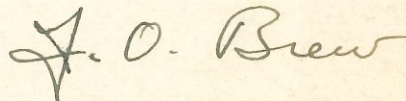
April 24, 1953

Miss Elizabeth K. Ralph
University Museum
33rd and Spruce Streets
Philadelphia, Pennsylvania

Dear Miss Ralph:

Thank you for your letter of April 14th in which you so kindly outlined in such useful detail your experiences with your Carbon 14 laboratory. This is just the kind of information we wanted and the most useful we have as yet received. If we go further with this, some of us will probably like to come down next fall and see your laboratory. In fact, I shall do this in any case the next time I am in Philadelphia.

Sincerely yours,



J. O. Brew, Director

JOB:it

✓ P EXB 004
Byers

Tachlumpus

September 6, 1963

Dear Doug:

Glad to have yours of August 17th, and sorry for the delay in replying, but I just got back from vacation. By this time, Beth should have been at your site near Truro, and have some ideas of the use of the instruments on that site. As you know, I am optimistic about the future use of these things, but I know that an awful lot of experimental work is necessary before they become generally useful, and so such difficult jobs as yours are all for the good.

Everyone here will scream like hell, if we run some of your carbon samples, because we are backlogged on all our major series, but since Beth and I are both much interested in the technical experimentation at this point, we will try to slip them in without too much of a fuss; so do send them in or, better, bring them yourself, and we will have a crack at them.

Very best wishes,

Froelbth Rainey

Mr. Douglas S. Byers
Rainbow Motel Lodge
341 Prince Street
Truro, Nova Scotia, Canada

ROBERT S. PEABODY FOUNDATION FOR ARCHAEOLOGY

PHILLIPS ACADEMY

ANDOVER, MASSACHUSETTS

Rainbow Motel Lodge
341 Prince Street
Truro, Nova Scotia
August 17, 1963

Dr. Froelich Rainey, Director
Applied Science Center for Archaeology
33rd and Spruce Streets
Philadelphia, 4, Pennsylvania

Dear Fro:

We have been working down here on a paleo-Indian site, as I'm sure you have heard from Bob Stuckenrath. Since Bob left us we have found that the occupation extends through something over 20 acres of territory that varies from bulldozed to untouched blueberry heath and conifer "bush."

Bob writes that we may expect Beth here about August 26th or 27th, and we are looking forward with anticipation to her visit. The problem of locating centers of occupation in this vast expanse of real estate is staggering. It would take a WPA project to test the area properly.

In portions of the site there seems to be a correlation between occupation sites and disturbances in the natural bedding of the sand which we assume to have been caused by wind-blown trees. If this is so, people sheltered behind the upturned stumps. In other portions of the site so much material has been found where there is no sign of bedded sand in the area that the hypothesis cannot be tested.

In the process of clearing the site people must have used bulldozers to pile stumps and trash which was then burned. Since red pines grow here we have very resinous trees to contend with. "Cinder-like" bits of charcoal have been found, and some of these grade into bark, so I assume that all this "cindery" charcoal is of recent origin and not worth anything as a dating substance. We at first believed this to be charred cancellous bone, but since finding the piece grading into bark I don't agree.

There are true "hearths" with concentrations of charcoal in which there are chips, fragments of "crazed" artifacts and of others not affected by heat. We believe that these hearths are contemporary with the occupation, and will furnish a true date. Bob collected charcoal from such a hearth, and we have one other sample which I believe is valid. In addition, we have all the soil from the latter, together with the charcoal.

Naturally we are eager to have these samples dated as soon as possible. It is my hunch that this site will prove to be later than Bull Brook; because there are appreciable differences in material it may be that differences in artifact inventory can be attributed to that rather than differences in time. If we can get samples to you in October would there be a chance that your laboratory could run them? If so, I will see to getting the samples in order and ready for shipment as soon as possible, or I'll bring them myself.

With all good wishes,

Sincerely,

Doug
Douglas S. Byers

DSB:dsb

~~Byers~~
Arch. Tech

May 18. 1963

Douglas S. Byers, Esq.
The Robert S. Peabody Foundation
Phillips Academy
Andover, Massachusetts

Dear Doug:

We have a young man working for us in the carbon-14 laboratory who is very anxious to get some field experience. He has taken a good many courses in the Department and eventually hopes to take his Ph. D. He had been all set to go with John Witthoft to work at Sheep Rock during July, but, John's budget has been cut so that he cannot continue there this summer.

Our boy is named Robert Stuckenrath. He is a good fellow and would make a very useful volunteer. It occurred to me that you might be able to use him in Nova Scotia. If you cannot, would you know of any other possibilities within reasonable distance of Philadelphia?

It was grand to see you and Dorothy looking so healthy. Everybody was very sorry that you could not join us at the Davises on Saturday night.

With all best wishes to you both,

As ever,

AK/vv

Tscheringer

May 25, 1963

Mr. Douglas S. Byers
Robert S. Peabody Foundation
Phillips Academy
Andover, Massachusetts

Dear Doug:

In anticipation of your return, Bob Stuchenrath would naturally like to receive his expenses to Nova Scotia and back, but since he can only take the month of July, he feels that it would be perhaps unfair to you to expect this. He is needed back in August and if you do not like the idea of having him for only a month, he will understand your position perfectly.

He is very anxious to get field experience, which he has not had, and I am sure that he could be of help, because he catches on very rapidly, and he has done a great deal of reading on the geology and archaeology of early man sites.

As ever,

AK/vv

ROBERT S. PEABODY FOUNDATION FOR ARCHAEOLOGY
PHILLIPS ACADEMY
ANDOVER, MASSACHUSETTS

PLEASE REPLY TO: BOX 71

May 23, 1963

Dr. Alfred V. Kidder
The University Museum
Thirty-Third and Spruce Streets
Philadelphia 4, Pennsylvania

Dear Alfie:

I have no idea just what is going to come out of arrangements for the work in Nova Scotia. Your man, Robert Stuckenrath, sounds like a wonderful hand to take along. I am off to Riviere du Loup and I will see my geological counterpart from the Nova Scotia Museum. I expect that he will have much more information about the people from Nova Scotia who are coming on the trip.

I will be back on the 27th and can get a letter off to you, probably on the 28th, telling you whether or not we will have a place for Stuckenrath. I have a feeling that there will be plenty of room. I would much rather have Stuckenrath than some herring joker, although we have to try to educate the natives.

Dot and I were very sorry to miss the Davis' that Saturday night. We got back on Thursday, late for supper, and had just enough time to catch my breath before I took off for Nova Scotia on Monday.

It was great to see you all and I hope we will see you again before too long.

Sincerely,



Douglas S. Byers

DSB/tg

What does Stuckenrath expect? Expenses to
and from Nova Scotia? - When can he start? }
We may have a preliminary party in the field
in late June-

[STUCKENRATH]

Arch. Techniques

June 6, 1963

Mr. Douglas S. Byers
Director
✓ Peabody Foundation for Archaeology
Phillips Academy
Andover, Massachusetts

Dear Doug:

I am sorry to say that the situation in the carbon-14 laboratory is going to make the necessary for Stuckenrath to be here until the very end of June. He is very disappointed, but there are reports that must be finished and he simply will not have time to do so before the 24th.

He would still like to join you in July, if it could be worked out on your side.

As ever,

Alfred Kidder II

AK/vv

ROBERT S. PEABODY FOUNDATION FOR ARCHAEOLOGY
PHILLIPS ACADEMY
ANDOVER, MASSACHUSETTS

PLEASE REPLY TO: BOX 71

May 28, 1963

Dr. Alfred Kidder II
University Museum
33rd and Spruce Streets
Philadelphia, Pennsylvania

Dear Alfie:

Thanks for yours of May 25.

If Stuchenrath can be on hand only during July it puts a different light on the matter. It is quite possible that I might be able to use him in late June and through July, if he can get away in late June. There is a good chance that Mac Donald will be starting the plane table the last week in June and he will certainly need a god man.

I will keep you posted. I expect to see Mac Donald on the third of June. Can you let me know whether Stuchenrath would be available to start work on the twenty-fourth of June?

All best,



Douglas S. Byers
Director

DSB/tg



Institute for Conservation Archaeology Laboratory
PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY

HARVARD UNIVERSITY, 11 DIVINITY AVENUE, CAMBRIDGE, MASSACHUSETTS 02138 U.S.A.
Telephone (617) 495-2248

Radiocarbon Laboratory
University of Pennsylvania
Department of Physics
Philadelphia, Pennsylvania 19174

24 Sept. 1980

Dear Dr. Ralph,

I am writing to you for some basic information concerning your radiocarbon laboratory; as I am organizing the Institute for Conservation Archaeology Laboratory, I find that such information is lacking, and since we do have prehistoric sites with hearth charcoal in them, it is essential that we have this type of information.

Basically, what I need is the following: information about the processes used by your lab, the amounts of material needed for the dating process, as well as price information, and some estimate concerning the amount of backlog that you have. Such information would be extremely useful and greatly appreciated; thank you for your time and consideration,

Sincerely,

Scott J. Andrus

Laboratory Supervisor



January 15, 1980

Mrs. Sharon Peavy
60 Schimwood Court
Getzville, New York 14068

Director
David Rittenhouse Laboratory
University of Pennsylvania
Philadelphia, Pennsylvania 19104

Dear Sir:

On December 14, 1979, Dr. Aldenderfer from the State University of New York at Buffalo called you about Carbon 14 dating and Chemical tests on some mummies and their textiles that belong to the Anthropology Department.

The mummies were discovered by prospectors in the Arizona area in 1887. They were shown around the United States at fairs and private showings. They they were stored in a garage in Batavia New York for many years. During this time they were infested with bugs. Formaldehyde was poured over the mummies to kill the bugs when they came to the department. Other contaminates of the mummies and their textiles are unknown.

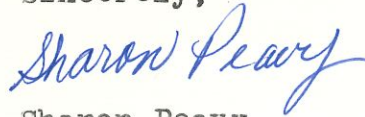
The mummies are two young adult males, a young adult female, an older female, and a three year old female. One of the males has deteriorated and bone samples are easy to obtain. Bone material from any of the others would require some destruction of the mummy. There are two kinds of textiles. They were taken to the Buffalo Science Museum, where they material was tentatively identified. The first was thought to be either agava or yaca with another material wrapped around each plant fiber. This string was thought to be made of dust, feathers, and fur. There is two large pieces of this textile. The other textile is five inches by five inches square and was thought to be animal fur, possibly rabbit.

Please answer the following questions concerning dating and chemical test of this material. Is it possible to clean any of this material so that a reliable date could be obtained? What kind of cost would be involved in the cleaning and dating process for the mummy bone, the plant textile, and the animal textile? Which material would you expect to give the most reliable date? How much material of each specimen would

be necessary for testing? What would be the cost of positively identifying the textile materials and who would you recommend to do this study? How long would each of these processes take?

Any help you can give me will be appreciated. Without reliable dates the study of this material is an exercise in futility because it can not be compared to other known material.

Sincerely,



Sharon Peavy

Walter Meyers

*Bill -
May we refuse
to accept these?
We are now charging
\$150/sample for
"outsiders". Beth*

OFFICE OF THE CHIEF ARCHAEOLOGIST

ROYAL ONTARIO MUSEUM

UNIVERSITY OF TORONTO

100 Queen's Park, Toronto 5, Canada. Tel. 928-3651 Cables: ROMA-Toronto

October 24, 1968

Mr. Robert Stuckenrath, Jr., Research Associate
Applied Science Center for Archaeology
The University Museum
University of Pennsylvania
33rd and Spruce Streets
Philadelphia, Pennsylvania 19104, U.S.A.

Dear Mr. Stuckenrath:

From our past correspondence, it is my understanding that analysis of radiocarbon samples from the Maya area had been scheduled for this fall, and that it appeared likely that it would be possible to include a series of samples from Altun Ha, British Honduras. Data on some of the samples have, I think, been submitted to you, and the necessary information on the remainder, principally those collected during the 1968 excavation season, can be supplied whenever required.

As I shall be returning to the field about mid-December, I hope it will be possible to make the necessary arrangements for processing of the samples some time in the near future, in order to avoid having to deal with the matter by letter from British Honduras. I would appreciate any information you can provide regarding scheduling of the analysis, any special requirements for shipment of samples, or other aspects of the matter.

Looking forward to hearing from you, I remain

Yours sincerely

David M. Pendergast
David M. Pendergast
Associate Curator

cc: Dr. A.D. Tushingham,
Chief Archaeologist

Beth - The last sample(s) he submitted - 4 or so years ago - were so meaningless in terms of associations etc that they should never have been accepted. Lord knows whether these new ones are any better controlled. On other grounds - competition for your time by us here on the premises - I think the whole thing should be refused. Bill Coe

SITE SURVEY AND RECORDING PROGRAM OF THE
✓ PENNSYLVANIA STATE MUSEUM

General Statement on "What is the Site Survey and Recording Program"

The site survey and recording program is essentially a program whereby sites of archaeological interest can be discovered, or once discovered, can be identified, catalogued, and located by a standard procedure. Such a program is valuable not only as a means for accumulating knowledge and studying specific problems of settlement pattern distribution, but it presents the professional as well as the amateur archaeologist with a uniform method for recording sites and cataloguing artifacts.

The basic program was one initiated by the River Basin Surveys Unit of the Bureau of American Ethnology about 1945. This organization in conjunction with the National Park Service and others supported surveys "to determine the extent and nature of archaeological and paleontological remains in areas to be flooded by the construction of dams". In order to properly identify these remains (sites), the River Basin Surveys initiated a standard trinomial system which has since been adopted by many institutions in a number of states to catalogue all archaeological sites within their boundaries.

The Pennsylvania State Museum is one of the many institutions to have adopted this trinomial system of identification which simply involves the use of symbols for state, county, and site, and has been using it to catalogue sites in the eastern part of the State. Carnegie Museum also employs the system and has recorded over 2000 sites for the western part of the State.

The program essentially establishes the State Museum as a repository for information concerning the location and nature of archaeological sites discovered in eastern Pennsylvania. It requires that the Museum maintain accurate records so that it is able to supply the proper trinomial designations required by the discovery of new sites.

Such a program, as has already been suggested, is not new to the Museum. Previous members of the Section of Archaeology have utilized the basic principles of the system. The new staff is very much interested in continuing this service to the public. However, some updating and reorganization of the system is necessary in order to render the service efficiently.

Mechanics of the Program

I. TRINOMINAL SYSTEM: Each state in the United States receives a numerical symbol which indicates the position of that state in an alphabetically ordered series. Alaska and Hawaii, since they have been added to the U.S.A. since the inception of the Trinominal System, receive numbers at the end of the alphabetic ordering. The designation for Pennsylvania is 36--others for example, Ohio is 33, New York 30.

The second designation of the trinomial is a standardized abbreviation for the county in which the site is situated. A listing of accepted abbreviations is to be found in an article by Vincent Mrozowski in the Pennsylvania Archaeologist (Vol. 23(2): 70-71).

The final designation is a number which refers specifically to a particular site. This number is assigned by the State Museum and indicates the order in which sites were reported.

To designate a particular site within the trinomial system, the following example is presented - 36Hul: (36) the State of Pennsylvania; (Hu) Huntingdon County; (1) first site designated in that county (Sheep Rock). A number such as this can readily be adapted to the cataloguing of private collections and still maintain

the privacy of those collections. However, this system will not function properly without some organization acting as coordinator.

II. DRAINAGE DIVISION: For the purposes of efficiency and lessening the burden on any one particular institution to act as coordinator for the survey, the State has been divided into two portions based upon river drainage systems. Carnegie Museum records and coordinates the sites in the Ohio Drainage; the Pennsylvania State Museum records and coordinates sites in the Susquehanna and Delaware Drainages. Sites within the counties of Potter, Cameron, Clearfield, Blair, Bedford, and east are coordinated by the State Museum; those to the west by Carnegie.

How the Program Functions

The operation of the system is quite simple. First, a request is made to the Museum for a series of numbers. Second, standard information forms are sent to the requester (see attached form). Third, standard forms are filled out and returned to the Museum. Finally, site numbers are assigned to the requester and the information is filed by the Museum.

Specific Policy

The policy of the Museum will be to maintain strictly confidential files. These files will not be open to the general public, but will be available to persons conducting a research project designed to make a specific contribution to the understanding of Pennsylvania Prehistory.

The policy of the Pennsylvania Historical and Museum Commission as recorded in the Minutes for the meeting of Tuesday, February 21, 1967, specifies that:

"Any use of the archaeological site record files in the Archaeology Section of the William Penn Memorial Museum, by private individuals or other institutions, shall require permission by the Section in response to a written request and statement of intent for use of the files. Permission to examine these files will be granted only in cases where scholarly purposes are clearly demonstrated. Such studies shall not include published descriptions of the precise locations of sites recorded in these files without the express written consent of the Section."

Address Correspondence to:

Ira F. Smith III, Field Archaeologist
Section of Archaeology
William Penn Memorial Museum
Box 232
Harrisburg, Pennsylvania 17108

PENNSYLVANIA STATE MUSEUM ARCHAEOLOGICAL SITE
SURVEY AND RECORDING PROGRAM

SITE NUMBER _____ SITE NAME _____ POINT LOCATION _____
(Museum Use)
PUBLISHED REFERENCES _____

SECTION I: LOCATION

COUNTY _____ TOWNSHIP _____ NEAREST TOWN _____
OWNER _____ ADDRESS _____
TENANT _____ ADDRESS _____
OTHER (Specify) _____

NEAREST BLDGS./ROADS: TYPE _____ APPROX. DISTANCE _____

MAP REFERENCE: We would prefer that you use the 15' topographic quadrangles. However, if these are not available, use the 7.5' series. To locate the site on either sheet, measure first from the bottom printed edge upward; second, from the right printed margin inward. Give measurements in inches.

15' Quad. Name _____ Edition _____ Up _____ Across _____

Other _____

MAP SKETCH: Sketch the site location, identifying by some point of reference, on the back of this sheet (e.g., barn, house).

SECTION II: SITE DESCRIPTION

LOCATION (e.g., terrace, stream junction) _____ MAP ELEVATION _____

IMMEDIATE VEGETATION _____

NEAREST WATER (Distance) _____ NAME SOURCE (e.g., Jake's Spring) _____

CULTIVATION (X): YES ___ NO ___ PREVIOUS BUT NOT PRESENTLY _____

STRATIFIED (X): YES ___ NO ___ UNKNOWN _____ SOIL TEXTURE (e.g., Sandy) _____

FEATURES _____ BURIALS _____

WHO COLLECTS AND WHERE ARE COLLECTIONS LOCATED? _____

YOUR CULTURAL EVALUATION _____

POSSIBILITY OF DESTRUCTION _____

SUBMITTED BY _____ DATE _____
_____ (address)

MUSEUM REMARKS:

December 17, 1971

Dr. Michel Perrin
Faculte des Sciences
Departement de Physique
34, avenue Carnot
63 Clermont-Ferrand
France

Dear Dr. Perrin:

Dr. Rainey has asked me to reply to your letter of November 12th, and I hope that you will forgive the delay in our response.

I am not sure that we can give you any useful information because we have not experimented with the detection of paramagnetic resonance nor bolemetric methods.

I have enclosed two reprints in case they are of interest to you, and I have forwarded your letter to some one in the Department of Physics who may be able to send you some references.

Sincerely yours,

Elizabeth K. Ralph

EKR/mm
Enclosures

ASCA 7

April 8, 1965

Dear Howard:

Attached is 1. a copy of the article by Glenn Seaborg "Science and The Humanities"; 2. a copy of the ASCA bulletin which was sent out; 3. four letters commenting on ASCA from other archaeologists, out of about sixty we have now received - all very enthusiastic; 4. a copy of George Bass' article on Undersea research.

This is the material for Mr. McCloy. I have marked quotes from Seaborg which I think are pertinent, but you may be interested in reading the whole article.

I have yet to find other quotes on this business by people like Seaborg, but I have my secretary looking. I hope this will do the trick.

Regards,

Froelich Rainey

✓ Mr. Howard C. Petersen
Fidelity-Philadelphia Trust Company
135 South Broad Street
Philadelphia 9, Pennsylvania

FGR/vg

*4 Enclosures
sent by hand*

January 21, 1965

To whom it may concern:

During the course of the past several months, Braz Francisco Winkler Pepe, of the Institute de Arquelogia Brasileria, has visited this laboratory on many occasions, and has observed all phases of laboratory operation. While he has not actually performed the routine dating services of the laboratory, he has studied and made detailed notes of our system of radiocarbon dating.

Robert Stuckenrath, jr.
Radiocarbon Laboratory

John Pfeiffer, Box 273, New Hope, Pa. 18938

December 1, 1976

Dear Fro,

Many thanks for your note, which arrived just as I was preparing to return as promised the enclosed magazine with your fine article, which I've read and taken notes on.

Also, thanks for the slides. I'm having black and white prints made to see how well they come out, and then the slides will be returned to you pronto I hope. The Times and Newsweek are notorious not-returners and I try not to be. I sure don't want to diminish your family files or disturb family harmony!

Meeting you was something like seeing Paris or London for the first time. I'd read your writing and knew so many people who knew you that things seemed very familiar right from the start.

I'm sure that the agreement on what you do with the Japanese films will arrive soon and may well have arrived by the time you get this note, because I had a talk with Peter the Monday after our Saturday meeting, and I know that he expected things to get started soon in Philadelphia. I'm very interested to know what you think of the films individually, and as a collective thing.

I hope our paths cross again, and soon.

Yours,

*P.S. For my
cards, is your
Gladwynne address
1436 Mark Rd ??
OR*



Seattle 6 January 1963

Dear Professor Rainey.

Ellen Hobler
What is this
can you
send it?
740

Why not use your Proton Magnetometer
to locate the foundations of the
Palace of Menelaos. Helen across the
river from Sparta?

Palace of Odysseus and Penelope at Stavros
on the island of Ithaki?

✓ PHILLIPS

Very Truly
Calvin Phillips Jr
1301 7th Ave

Seattle 1 Wash

EK Translation:

"Why not use your Proton Magnetometer to locate the
foundations of the Palace of Menelaos and Helen across
the river from Sparta?"

"Palace of Odysseus and Penelope at Stavros on the
Island of Ithaki?"

February 7, 1963

Mr. Calvin Philips, Jr.
1301 7th Avenue
Seattle 1, Washington

Dear Mr. Philips:

Thank you for your suggestion to use the proton magnetometer to locate the foundations of the Palace of Menelaus and Helen near Sparta and the Palace of Odysseus and Penelope at Stavros.

The archaeologists here whom I have consulted are not familiar with the ground conditions at these two sites, but suggest that they are in rocky terrain. If so, it is unlikely that the building foundations would differ in magnetism sufficiently from the surrounding deposits. The magnetometer worked especially well at Sybaris because this is an alluvial plain and it happened that the deep deposits of clay were more magnetic than the buried foundations. The walls were, therefore, detected as regions of magnetism.

I have enclosed a copy of my field report in which the conditions there are described more fully.

Sincerely yours,

Elizabeth K. Ralph

EKR:pc

C
O
P
Y

THE ARCHAEOLOGY SOCIETY INC.

and

THE STATEN ISLAND SOCIETY, ARCHAEOLOGICAL INSTITUTE OF AMERICA

WAGNER COLLEGE

Staten Island, N. Y. 10301

OFFICERS:

Jacques N. Jacobsen Jr.
President

Alfred F. Ingram
Vice President

Sal J. Santo
Vice President

Lynn W. Kawi
Treasurer

Cornelia H. Ingram
Secretary

Helen H. Loeffler
Membership Secretary

George Hassoldt
Publicity Chairman

1411 Jesup Avenue
Bronx, New York
10452
January 11, 1971

Miss Elizabeth K. Ralph
University Museum
University of Pennsylvania
Thirty-third and Spruce Streets
Philadelphia, Pa. 19104

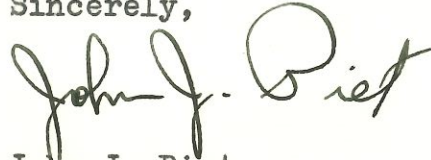
Dear Miss Ralph:

Perhaps with your broad experience in instrument surveys, you could advise me on the practicability of using a Gossen Geohm or similar earth resistance measuring instrument for discovering stone walls just under the surface of the ground.

In Staten Island we should like to survey and perhaps excavate some Colonial sites. The remains of stone chimneys, if we can locate them under the earth, should give us a rough town plan.

Any advice you could offer would be appreciated. Could you direct me to any published surveys of this type?

Sincerely,



John J. Piet
Archaeological Field Director

BOARD OF DIRECTORS:

George G. Hackman, Ph.D.
Chairman

Elin Gotthardt
William C. Gotthardt
Cornelia H. Ingram
Alfred F. Ingram
Jacques N. Jacobsen Jr.
Marion M. Jacobsen
Khairy A. Kawi
Lynn W. Kawi
Helen H. Loeffler
Jane C. Santo
Sal J. Santo



Museum Applied Science Center for Archaeology

Froelich Rainey, Director

Elizabeth K. Ralph, Associate Director

THE UNIVERSITY MUSEUM • UNIVERSITY OF PENNSYLVANIA
33rd & SPRUCE STREETS • PHILADELPHIA, PENNSYLVANIA 19104
386-7400 (Area Code 215) Cable Address "Antique"

19 January 1972

Mr. John J. Piet
Archaeological Field Director
The Archaeology Society Inc.

Dear Mr. Piet,

Since Miss Ralph is travelling on a lecture tour now, I'll try to speed up your investigation with this note.

The enclosed reprint, "Archaeology and its New Technology", gives an example where Miss Ralph found excellent detection of wall foundations by a resistivity survey in a situation probably very similar to yours.

The resistivity variations detected by these instruments are primarily the result of relative moisture content differences; if the soil is too wet or too dry, little contrast will be found between buried walls and the surrounding soil. In many locations, early summer is about ideal.

A good summary of resistivity measurement techniques is found in Science and Archaeology; I've enclosed a copy of the chapter.

Be sure to write to Miss Ralph or me when you have more questions.

Bruce Bevan

Bruce Bevan

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19174

The College

DEPARTMENT OF PHYSICS E1

October 13, 1975

Dr. Robert Pinner
34 Pope's Grove
Twickenham
England TW1 4JY

Dear Dr. Pinner:

For dating the carpets which you have described, there are a number of problems. The most serious is illustrated in Fig. 1 of the enclosed MASCA Newsletter. There were oscillations in the inventory of C^{14} which are especially troublesome for samples younger than A.D. 1500. For example, a C^{14} date of A.D. 1840 could fall anywhere from A.D. 1800 to 1690. This ambiguity is in addition to our normal statistical counting error of about ± 50 years.

I have enclosed a list of our sample requirements and an information sheet. The sample sizes are on the safe size. We have not dated carpets, but we find that 20 grams are sufficient for linen mummy wrappings.

If you would like to send a sample of one that you think is the earliest, we could give it a try. However, since oriental carpets do not happen to be of great interest to the curators of our University Museum, we have to charge \$150 per sample. There are good C^{14} laboratories in Cambridge (Dr. V. R. Switsur, Botany School, Downing St.) and the British Museum (Mr. Richard Burleigh, Research Laboratory, London WC1B 3DG) that might charge less.

Please give my regards to Dr. Mellaart if you see him.

Sincerely yours,

EKR:emd
Enclosure

Elizabeth K. Ralph

Dr. Beth Ralph,
MASCA
University of Pennsylvania,
University Museum,
Philadelphia,
Pa., U.S.A.

7th October 1975

Dear Dr. Ralph,

My friend James Mellaart has advised me to write to you to ask you for advice on the carbon dating of oriental carpets.

Among certain groups of such carpets there are a number which although they occupy key positions in the history of the oriental carpet, are surrounded by a great deal of uncertainty as to their date of origin. In many cases there is little historical or archaeological evidence and although the literature contains different statements, they are for the most part opinions based on stylistic evidence alone. Nearly always there is strong disagreement about dates based on sequence dating. Perhaps I might illustrate this point as follows:

Caucasian carpets

The most important among these are the so-called dragon carpets. Over the last 50 years specialists have proposed dates for these which vary from 13th century to 17th century for the same specimens. In addition there is disagreement which of the sub-groups of dragon carpets are the earliest, - again sometimes by as much as one or two centuries.

Central Asian carpets

The carpets which are thought to be the earliest of their type are attributed by some specialists to the 19th century, by others to the 17th century or even earlier. Sequence dating is also rather unreliable for these groups so that it is by no means always possible to be certain which sub-groups are the earlier.

Anatolian carpets

There are a number of early Anatolian carpets which have variously been attributed to the 15th and 17th century.

These are by no means the only examples about which there is considerable uncertainty. Dr. Mellaart tells me that he believes that it may be possible to day to obtain carbon dates to an accuracy of the order of ± 50 years. As you will appreciate even a few tests on selected examples would in the circumstances be of tremendous help in answering some very fundamental problems.

I would be most grateful if you would give me your opinion.

yours sincerely

Robert Pinner

4 Dec 75

Dr. Walter Pitman
Lamont-Doherty Geological Observatory
Torrey Cross
Palisades, N.Y. 10964

Re: Request for magnetometer data.

Dear Dr. Pitman:

The article on plate tectonics done by the Smithsonian Institution in the January & February issues of their journal this year, indicated a magnetometer reading for the British Isles of approximately 30 degrees counterclockwise from the present meridian. It would be helpful if your work confirms their figure with greater precision. Does it?

It would also be very useful to have whatever readings you have on the Lima-Nasca-Cusco area of Peru at the same time period as that of the British Isles. If your work indicates a pre-existing field of about 80 degrees counterclockwise from the present meridian for that specific area, it might be possible "to date" the date the Chile-Peru Trench in the Pacific Ocean as well as the great ~~rift~~^{RIFT} in Africa.

There are three other area's where the readings would be helpful, if you have them;

1. The northern part of the "Great Dividing Range" in Queensland Australia; Cooktown.
2. Borneo or the Celebes.
3. The northernmost of the Andaman Islands in the Bay of Bengal.

Such readings might tell us something useful about the ancient Inca Empire and Antarctica.

Thank you,



Michael A. Cruise
Devon, Pa. 19333

215 Devonshire Rd.

644-3394

cc: Dr. Ralph, MASCA ✓

Tschunpiss

July 12, 1963

Dear Mr. Heinze:

There is nobody in the Carbon 14 laboratory at the present time. Since I don't suppose you are in a hurry for the bone material, I hope you will not mind waiting until September when the lab will again be functioning.

I will not forget your kind offer of assistance and I think the Tikal project would be very happy to have some of your products next season. I shall be away until the end of August but you will be hearing from me shortly thereafter.

Sincerely yours,

Alfred Kidder
Associate Director

AK/eh

Me. W. O. Heinze, President
Playtex International Latex Corp.
Empire State Building
350 Fifth Avenue
New York, N. Y.

playtex[®]
INTERNATIONAL LATEX CORPORATION

Main Office and Factory: Playtex Park, Dover, Delaware, U.S.A.

Please address reply to New York Office and Foreign Sales Division: Empire State Building, 350 Fifth Ave.

July 11, 1963

Professor Alfred Kidder II
Associate Director
The University Museum
University of Pennsylvania
Thirty-third and Spruce Streets
Philadelphia 4, Pennsylvania

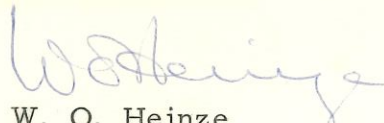
Dear Professor Kidder:

Naturally I was disappointed to hear that you were unable to make a carbon-14 test on the bone material I sent you. Would it be convenient for you to have this material mailed to my home. If not, I could have someone pick it up if you would tell me where they should go.

I had hoped to go back to Brazil this spring but must now defer this until at least next year. I will see you before I go.

Is there any way in which I could be helpful to the University Museum at this time. I have previously offered to supply our Isodine antiseptic ointment and gargle. Our ethical Physicians Products Company also has a surgical scrub and antihistamine if these would be helpful to you.

Cordially,



W. O. Heinze
President

WOH:p

January 16, 1970

Dear Mr. Piet:

I am sorry to say our plans for the magnetometer in the Near East have not yet been settled. We have had requests from Yugoslavia, Turkey, Egypt, Italy and so forth, but Miss Ralph has been ill, and at the moment we are not sure we will have a skilled operator for the instruments available for work in that part of the world. Therefore I will just have to let you know about this when plans are settled.

We do have Ford Foundation money for graduate students, but as you probably know from Columbia, we can only use that money for students working under the direction of one of our field directors from the University Museum and it can not be used for independent student research. This is part of the agreement with the Ford Foundation when they made that money available to several universities in this country.

In any case, let me know how your plans get on.

Most sincerely,

Froelich Rainey
Director

Mr. John J. Piet
815 West 181st Street
New York, New York 10033

FR:gb

Techniques

de 2 avril, 1965

Cher Monsieur Poitevin:

Nous vous remercions pour votre lettre du 4 mars. En reponse a votre questions, je me permet de vous conseiller d' ecrire au Laboratoire d' Oxford, en Engleterre. (Cedi etant plus pres de vous.)

Nous avons achete notre proton a magnetometres a Oxford, et la manipulation de cet appareil doit etre faite par un specialiste.

Tous nos ~~textes~~ textes relatifs a l'application de cet appareil e l'arqueologie sont en Anglais. Cepandant, dans le texte de Martin J. Aitken, Physics and Archaeology, Interscience Publishers, Ltd., London(1961) vous trouverez des references en Francais.

Nous regrettons que nos engagements nous permettent pas d'etre de plus grande assistance a vous.

Avec mes sentiments distingues,

Mrs. John C. Gwinn
Secetaire du Dr. Rainey

Mr. R. Poitevin
3, Rue du Grenier- a - Sel
Beauvais, France

R. POITEVIN
MÉTREUR
TECHNICIEN EN BATIMENT
3, Rue du Grenier-à-Sel
BEAUVAIS
Té. 945-24-01 (Oise)
FRANCE

BEAUVAIS LE 4 MARS 1965

Monsieur le Docteur FROELICH G. RAINEY
directeur du Musée de Pennsylvanie

ETATS UNIS D'AMERIQUE

Monsieur le Directeur,

Mes collaborateurs et moi-même avons pris connaissance avec un très vif intérêt du rapport cité dans le numéro 2 de la revue française "Archéologia" relatif à vos travaux en Italie du Sud, lesquels ont permis notamment de dresser le plan exact d'une ville ensevelie, grâce à l'emploi du magnétomètre à rubidium.

Passionnés de recherche archéologique depuis de nombreuses années, nous avons consacré notre temps à des prospections malheureusement très souvent infructueuses par défaut de matériel de détection bien adapté.

Notre région est riche de vestiges ensevelis et nous avons pensé que l'emploi de votre appareil, dont le maniement offre paraît-il beaucoup de facilité, nous serait d'un très grand secours.

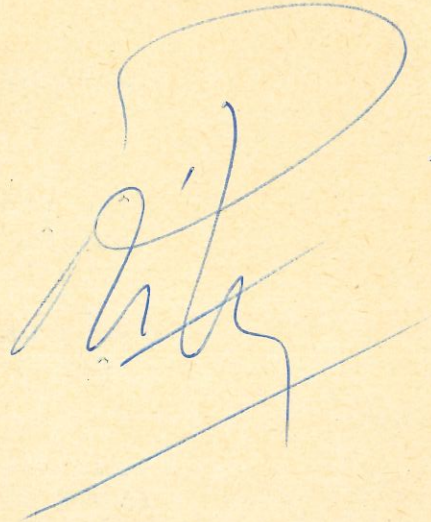
Aussi, nous désirerions connaître vos conditions sur les points suivants en vue de l'utilisation éventuelle de votre procédé :

- votre appareil peut-il être loué ou doit-on en faire l'acquisition?
dans ce cas, la manipulation pourrait-elle être faite par nous-mêmes?
- dans la négative, faut-il envisager que vous vous déplaciez personnellement pour procéder aux recherches sur le terrain?

Dans l'un ou l'autre cas, quelles seraient les dépenses à envisager? S'il existait une documentation technique, de préférence en langue française, relative aux applications de

votre appareil à l'archéologie, nous serions
très heureux d'en prendre connaissance.

Dans l'attente de vous lire, nous vous
prions de recevoir, Monsieur le Directeur, l'
assurance de nos sentiments très respectueux.

A handwritten signature in blue ink, consisting of a large, stylized initial 'P' followed by a surname that is partially obscured by a long horizontal stroke.

R. POITEVIN
3, rue du Grenier à Sel
BEAUVAIS (Oise)
FRANCE

BEAUVAIS LE 19 AVRIL 1965

THE UNIVERSITY MUSEUM
UNIVERSITY OF PENNSYLVANIA
Thirty-third and spruce streets

PHILADELPHIA - Pennsylvania 19104

A l'intention du Docteur RAINEY

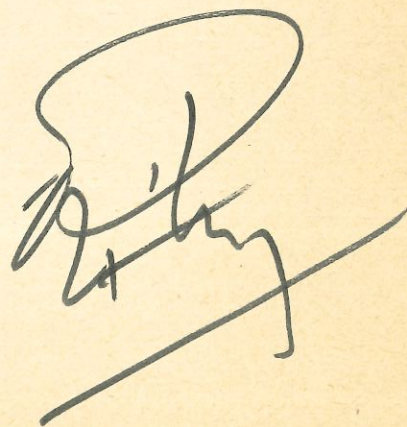
Cher Monsieur,

J'ai pris connaissance avec un très vif intérêt de votre lettre du 2 de ce mois dont je vous remercie beaucoup.

Je n'ai pas manqué de commander aussitôt à Londres le livre dont vous m'avez recommandé la lecture.

Par ailleurs, devant me rendre en Angleterre dans les premiers jours du mois de Mai, j'aurais souhaité qu'il vous soit possible de me préciser le nom et l'adresse du Laboratoire d'Oxford où je compte me rendre afin d'examiner les possibilités d'utilisation en France d'un magnétomètre à protons appliqué à l'archéologie.

Vous remerciant à l'avance de votre aimable et prochaine réponse, je vous prie de croire, cher Monsieur, en mes sentiments les meilleurs.

A handwritten signature in black ink, appearing to be 'R. Poitevin', written in a cursive style. The signature is positioned in the lower right quadrant of the page, below the typed text. A horizontal line is drawn across the bottom of the signature.

September 21, 1976

✓
Mr. Leon Pomerance
115 Central Park West
New York, N.Y. 10023

Dear Mr. Pomerance:

Thank you very much for the check for \$1000. It will help in defraying the cost of Anne Meulengracht-Madsen's salary.

It is a pleasure to have Anne in the radiocarbon laboratory, and she is learning the techniques here quite well.

I hope to see you at the AIA meetings in New York if not before then.

Thank you again.

With best regards,

EKR:emd

Elizabeth K. Ralph

LEON POMERANCE
115 CENTRAL PARK WEST
NEW YORK, N.Y. 10023

September 8, 1976

Dear Dr. Ralph:

In response to your telephone call about the Research Project, I am enclosing herewith a check for \$1000.00 toward the funds needed.

I regret that at this time for the reasons I gave you over the phone I am unable to donate a larger sum.

If you will write me again in early January 1977 I will try and send you another check for the same amount.

With warm personal regards,

Sincerely,

Leon Pomerance
Leon Pomerance

LEON POMERANCE
115 CENTRAL PARK WEST
NEW YORK, N. Y. 10023

714

Y
O THE
RDER OF

University of Pennsylvania

Sept 7 1976

1-87
210

One thousand 00/100

\$ 1000 00

DOLLARS

FIRST NATIONAL CITY BANK
BROADWAY AT 72ND ST.
NEW YORK, N. Y.

Leon Pomerance

⑈000714⑈ Ⓜ:0210⑈0008⑈ 01342598⑈

UNIVERSITY OF PENNSYLVANIA
Philadelphia, Pennsylvania 19174

PROPOSAL FOR RESEARCH PROJECT

Submitted for Consideration: Danish '43 Fund
Title of Proposal: Support for Anne Meulengracht-Madsen,
Graduate Student
Principal Investigator: Elizabeth K. Ralph
Social Security Number: 002-14-7858
School: FAS, University of Pennsylvania
Duration: September 1, 1976 to August 31, 1977
(one year)
Funds Requested: \$6,358

Date: August 1, 1976

NYC Mtgs.

Elizabeth K. Ralph

*Letter sent to Pomerance
by D. Crowner 8/10/76
Tel. 212-595-8404
115 Center Park W
NYC*

SUPPORT FOR A GRADUATE STUDENT

There is a need in the Radiocarbon (Department of Physics) and MASCA (University Museum) laboratories at the University of Pennsylvania, for an additional graduate student.

While visiting the U.S.A. and volunteering in our laboratories from October 1975 to March 1976, Anne Meulengracht-Madsen demonstrated her excellent ability to learn our dating and other techniques, and was extremely enthusiastic about working and studying at the University of Pennsylvania.

Before returning to Denmark, she applied for admission to the Graduate School of Arts & Sciences, and has since been accepted in the Department of Classical Archaeology.

We offered her employment tentatively in the Radiocarbon Laboratory. The hourly requirements and salary are specified in the Budget. If a donation is made in the form of a grant, she would also receive free tuition except for the general fee. We had anticipated that we would have an opening supported by one of our current Budgets, but this opening has not materialized for the coming academic year.

Therefore, we are requesting support for Anne Meulengracht-Madsen for one year. We anticipate that she will make a significant contribution to the research in our laboratories as well as be a good student in Archaeology.

BUDGET

One Graduate Student, A-2
3 summer months - full-time
Academic year - 1/2-time
FTE 8 person months

One Year

Salary

\$5250

Employee Benefits (21.1%)

1108

Total - 1st year

\$6358

December 10, 1976

Mr. Leon Pomerance
115 Central Park West
New York, New York 10023

Dear Mr. Pomerance:

This is to report that Anne Meulengracht-Madsen is working extremely well in the Radiocarbon Laboratory. Also, I have heard from her Professors who teach her three classes that she has been studying hard and that she will receive good grades at the end of the semester.

If you could be kind enough to send us another \$1000 in January, we should appreciate it. Thereafter, we hope to support her with a renewal of our NSF Grant.

Thank you for your timely assistance.

Sincerely yours,

Elizabeth K. Ralph

EKR/cs

**Jewish
Communal
Fund**
of new york
745 fifth avenue
new york 10022
212.752.8277

February 1, 1977

University of Pennsylvania
Radiocarbon Laboratory
Philadelphia, Pa. 19104

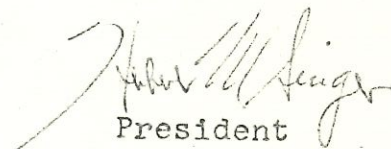
Att: Dr. Elizabeth Ralph

Dear Dr. Ralph:

Mr. Leon Pomerance, of 115 Central Park West, New York, N.Y. 10023, has established the Leon Pomerance Philanthropic Fund with us. He has recommended a grant from this fund in the sum of \$1,000 to the University of Pennsylvania for the Radiocarbon Laboratory.

I am happy to inform you that the Jewish Communal Fund has approved this recommendation. Accordingly, it is with pleasure, and in keeping with our dedication to the support of the voluntary system of philanthropy, that I enclose a check of the Jewish Communal Fund for \$1,000, payable to the University of Pennsylvania, for the Radiocarbon Laboratory.

Sincerely,


President

HMSinger/ih

Encl.

cc: Mr. Leon Pomerance

JEWISH COMMUNAL FUND OF NEW YORK

1593

Leon Pomerance PHILANTHROPIC FUND

February 1, 1977 $\frac{1-131}{210}$

DAY
TO THE
ORDER OF

University of Pennsylvania

\$ 1,000.00

1000 DOLLARS

DOLLARS



UNITED STATES TRUST COMPANY

OF NEW YORK

45 WALL STREET, NEW YORK, N. Y. 10005

Abel M. Singer
Merrill K...

⑆0210⑆⑆0131⑆

⑆0 1575 7⑆

February 21, 1977

Mr. Herbert M. Singer, President
Jewish Communal Fund of New York
745 Fifth Avenue
New York, New York 10022

Dear Mr. Singer:

On behalf of the Radiocarbon Laboratory, I wish to send my sincere appreciation to you, to Mr. Pomerance, and to members of the Jewish Communal Fund for your grant of \$1000 to the University of Pennsylvania.

This grant is enabling us to support a graduate student - namely, Anne Meulengracht-Madsen from Copenhagen, until salary funds are available from the National Science Foundation.

This support and Anne's capable assistance in the laboratory are helping immeasurably toward the continuance of our research and the carbon - 14 dating of archaeological samples.

Thank you very much.

Sincerely yours,

Elizabeth K. Ralph
Radiocarbon Laboratory
Department of Physics
David Rittenhouse Laboratory/E1

EKR:mbp
cc: Mr. Leon Pomerance

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 4

OFFICE OF THE PRESIDENT

February 24, 1965

Dear Miss Ralph:

In Dr. Harnwell's absence from the office this week, I should like to thank you on his behalf for your note bringing him up to date on activities in the radiocarbon laboratory. I know that he has always been very much interested in what you are doing in this area and that he will read your note with pleasure.

Very sincerely,

(Miss) Marion F. Pond

Marion F. Pond
Administrative Assistant
to the President

Miss Elizabeth K. Ralph
BW4 David Rittenhouse Laboratory

May 28, 1975

Dear Mr. Pontoricio:

I am terribly sorry that I have no plans for returning to southern Italy for instrument surveys and, therefore, cannot take up your intriguing proposal regarding a search for a site there. In any case, I will keep your information in strictest confidence.

Most sincerely yours,

Froelich Rainey
Director

Mr. Ignazio Pontoricio
Via Villini Norvegesi, 19
89100 Reggio Calabria
ITALIA

Reggio Calabria

13/5/75

Chiarissimo Professore.

Ho ricevuto la Sua gradita lettera e Le rispondo subito, e per ringraziarla, e per arrivare al motivo della mia lettera precedente.

Noi ci siamo conosciuti qui in Calabria, quando lei si interessava alla ricerca della antica città di Sibari; e poiché anch'io mi sono interessato alla stessa cosa, mi farebbe piacere sapere se lei si interessa ancora e se conta di ritornare qui in Calabria a riprendere le ricerche.

Io mi sono interessato per molti anni alla ricerca dell'antica città acber: in particolare modo mi sono dedicato alla ricerca del punto esatto dove avvenne la deviazione del fiume

ati per opere dei
crotornati. Questo punto,
io l'ho scoperto, e ho scoperto
che la deviazione del fiume
è avvenuta, non in un
solo punto, ma in tre punti,
e in due tempi diversi, cioè
prima in un punto, e dopo
qualche tempo in altri due
punti, ma sempre per lo
stesso scopo: inoltre, nella
stessa zona ho scoperto
le tracce di un grande
stadia.

Per ragioni che Lei potrà
immaginare, non posso
darle notizie più dettagliate,
né inviarle fotografie di cui
sono in possesso.

Di quanto ho scoperto, io solo
sono a conoscenza e io solo
sono in possesso delle fotografie
che confermano con assoluta
esattezza quanto asserisco.

epic
quanto
interessar
trattare
ne
interessa
distinger
tenere
Se
farsi un
io mio
avanz
line -
to m
rispon
verità, e
mi e o
attività
nella
prego
e del
le notifi
infinitam
Ponte

carissimo professore. se
quanto se ho confidato potrà
interessarla, io mi lieto di
trattare con lei l'argomento:
nel caso, e lei non
interessasse. La prego di
distendere questo scritto e di
tenere segrete queste notizie.
Se poi, lei conta di
fare un viaggio in Italia
io mi felice di incontrarla
ovunque - escluso Reggio Calabria
Sine - Quanto se ho confidato
to nelle mie scoperte,
risponde esattamente alla
verità, e se dico pure che
mi è stata proibita qualsiasi
attività di ricerca archeologica
nella Sibantide; perciò, la
prego di considerare segrete
e del tutto confidenziali
le notizie che se ho date.
con l'occasione mi è
infinitamente gradito poterle
salutare.
Ponticchio proprio

sp.

Ignazio Pontasiero

Via Villini Noweger 19

89100 Reggio Calabria

Italia

Ho
lettera

e per
arrivare
lettera

Non
qui in
si inter
antico
anello

alla
piacere
inter

di ritorno
& ripren

per un
dell'ant

partico
deotico

punto
la deriv

Al signor
Direttore

del Museo dell'Università
di "PENNNSYLVANIA

USA

PHILADELPHIA PENNSYLVANIA

1977

PER VIA AEREA
PAR AVION
Mod. 24-R



Dr. Pontorico Ignazio
Via Villini Norvegesi 19
89100 Reggio Calabria
Italia

IGNAZIO PONTORICO
VIA VILLINI NORVEGESI, 19.
89100. Reggio Calabria
ITALY

December 21, 1961

Mr. and Mrs. Lynn Poole
Dept. of Public Relations
The Johns Hopkins University
Baltimore 18, Maryland

Dear Mr. and Mrs. Poole:

Thank you very much for the copy of "Carbon-14 and other Science Methods that Date the Past". I admire the way in which you have made these subjects easy to understand and interesting, too.

The book will be helpful to adults as well as younger students. In the laboratory here, it has already helped a new assistant in understanding carbon-14 dating. It was also noted eagerly by members of the Department of Education of the Academy of Natural Sciences of Philadelphia, who visited us this week.

With best wishes for a Happy New Year, I am

Sincerely yours,

Elizabeth K. Ralph
Research Associate

EKR/deh

October 12, 1962.

✓ Mr. John A. Linkletter,
POPULAR MECHANICS
575 Lexington Avenue,
New York 22, N. Y.

Dear Mr. Linkletter:

Mr. Berland has asked me to send you photographs of our prototype sonic device which Dr. Rainey and I tested at Sybaris in the Spring of 1962. Two prints are enclosed with brief notations on the backs of each.

Sincerely yours,

EKR:LF

Elizabeth K. Ralph

JEAN D. PORTELL
13 Garden Place
Brooklyn, New York 11201

CONSERVATION OF SCULPTURE

Telephone: (212) 643-1222

May 17, 1979

Dr. Elizabeth K. Ralph
Director, Radiocarbon Laboratory
Department of Physics
University of Pennsylvania
Philadelphia, PA 19174

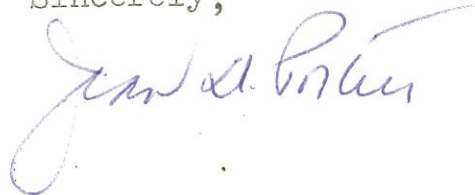
Dear Dr. Ralph:

Thank you for sending me the three articles about radiocarbon dating. They are very helpful.

I am sending you four grams, the minimum quantity you specified, of wood fragments from an ancient funerary mask. The owner acquired the mask in France, and the gallery did not have any information to supply about its origin. It is considered to be Nubian, and further studies, both technical and curatorial, will be made.

Regarding question 9 on the enclosed copy of your information requested form, a successful carbon 14 dating of the sample will be used, together with the results of other investigations, to help establish the correct attribution of the mask.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jean D. Portell", written in a cursive style.

May 23, 1979

Ms. Jean D. Portall
13 Garden Place
Brooklyn, New York 11201

Dear Ms. Portall:

Your sample of wood and letter arrived today. Since you have so little information, and it may not be of archaeological importance, we hesitate to accept it for ^{14}C dating.

I suggest that you send it to Jim Buckley, Isotopes Inc., Westwood Laboratories, 50 Van Buren Ave., Westwood, N. J. 07675. Their minimum charge is \$200 per sample.

If we should date it, there would be a waiting time of at least one year, and a charge of \$300.

Please let me know where you would like me to send it.

Sincerely yours,

Elisabeth K. Ralph

EKR/bh

JEAN D. PORTELL
13 Garden Place
Brooklyn, New York 11201

CONSERVATION OF SCULPTURE

Telephone: (212) 643-1222

June 14, 1979

Dr. Elizabeth K. Ralph
Director, Radiocarbon Laboratory
Department of Physics
University of Pennsylvania
Philadelphia, PA 19174

Dear Dr. Ralph:

Thank you for suggesting that I consult Mr. Bob Stuckenrath, of the Smithsonian, about the carbon 14 dating of the wood sample I sent to you last month. His dating samples must also go through curatorial channels, and therefore I asked him to suggest someone else. He has recommended the following person:

Mrs. Irene Stehli
Dicarb Radioisotope Co.
16432 Stone Ridge Road
Chagrin Falls, Ohio 44022

Will you please forward the sample to her, as she will be able to carry out the dating without a long delay.

My files on (and understanding of) carbon 14 dating are growing rapidly. I shall be very glad, though, when a method is devised that requires a far smaller sample -- even if that means longer waiting times due to increased demand for the analysis!

Sincerely yours,

Jean D. Portell

Returned 6/25/79

September 21, 1973

TO: Dr. Froelich Rainey
FROM: Gregory L. Possehl
SUBJECT: South Asian Archaeological Research Development

Archaeological research in South Asia is in its infancy. Efforts by several universities and national archaeological services have historically been directed toward the recovery of data within a time/space framework and the construction of a comparative stratigraphy. These efforts have been largely successful and a setting within which new research priorities can be established has been created. Problem orientations directed toward the recovery of regional settlement patterns, internal community structure and broad based palaeo-demographic studies seem immediately possible.

Previous work by this investigator in both India and Pakistan has created a series of personal contacts and institutional relationships which will promote research opportunities. As is widely recognized American scholarly work in India has been recently restricted by the central government there. Archaeology however has been one of the few disciplines to receive research approval. With the provision of dollar funding this situation is unlikely to change. On the other hand, current archaeological research conditions in Pakistan appear to be excellent as indicated by the recent approval of two American projects. In addition the government there has approved the establishment of an American Institute of Pakistan Studies, and the University of Pennsylvania is in the process of establishing a formal relationship with Islamabad University, at Islamabad. Dr. A. H. Dani, a distinguished prehistorian, is a key figure in these arrangements.

American archaeological work in South Asia has never been fully successful. But, inspite of this history, and difficulties which may seem inherent in the situation, the area remains one of promise. A planning trip to begin

in December, 1973, is therefore suggested as a first step in re-establishing contact between the University Museum and the primary institutions involved with archaeological work in South Asia. The immediate goal of this visit will be an assessment of current research conditions and laying a foundation for the resumption of field work with the institution which seems most suited for long term cooperative affiliation.

In conjunction with the emerging commitment to Southeast Asia it is further suggested that I travel on to Thailand and Malaysia for the purpose of establishing personal ties in this area. I would also plan to join Dr. Gorman at his excavations for personal exposure to field conditions in the region.

BUDGET

Airfare	\$1,500.00
Support	
(\$20.00/day for 40 days) ..	\$ 800.00
Internal travel	
Pakistan	150.00
India	200.00
Thailand	<u>100.00</u>
	\$2,750.00

I plan to submit a grant proposal for Project Development in India and Pakistan to the Smithsonian. If approved this will cover airfaresupport and internal travel for the India and Pakistan portions of this trip.

2 750.00
1 500.00

\$ 1,250.00

November 10, 1973

Dear Mr. McLaughlin:

Many thanks for yours of November 6th regarding Sky Lab and satellite photographs for archaeology. As a matter of fact, I have long been in touch with NASA and the Interior Department about this and we have one of our people in the Applied Science Center for Archaeology, Bruce Bevan, scheduling experiments along this line with the ERTS project.

I have just written an article which includes an account of this for the magazine Archaeology which will be out in January. We are all very much impressed with the resolution of these satellite photographs and really think some can be used for archaeology. Anyway, thanks for thinking of us.

Sincerely,

Froelich Rainey
Director

Mr. Joseph P. McLaughlin
THE BEACON AGENCY, INC.
Western Saving Fund Building
Broad and Chestnut Streets
Philadelphia, Penna. 19107

THE BEACON AGENCY, INC.

WESTERN SAVING FUND BUILDING
BROAD AND CHESTNUT STREETS
PHILADELPHIA, PENNA. 19107
TELEPHONE AREA 215 KINGSLEY 6-1830

Joseph P. McLaughlin, President
Accredited PRSA

November 6, 1973

Dr. Froelich G. Rainey, Director
The University Museum of the University of Pennsylvania
34th and Spruce Streets
Phila. Pa. 19104

Dear Fro:

I tried to reach you by telephone yesterday but you were not in your office when I called.

I had just come from a luncheon at the Poor Richard Club which was addressed by Dale S. Myers, Associate Director of NASA. He talked about the results of the Sky Lab Space Mission. One of the things he mentioned was the apparent discovery in Nevada of a hitherto unknown site of mineral deposits near an abandoned mine which resulted from examination by geologists of photographs taken by the Sky Lab crew. A team from one of the universities will shortly undertake surface exploration to determine if the mineral deposits actually are there.

It made me think of the experiments made a few years ago under University Museum sponsorship in Italy in which photographs were taken from high-flying planes (I think B 52's) in an effort to locate possible sites of buried ruins. I believe the theory was that anomalies could be detected from changes in the color of vegetation which were not observable from the surface.

I asked Mr. Myers' assistant - a Mr. Littlefield -- who sat next to me, whether any of the photos taken of the earth's surface by Sky Lab had been examined by archeologists. He said that to the best of his knowledge no archeologists had examined them, although many scientists in other disciplines had. He said also that the Sky Lab photos " had great resolution" and they might conceivably be helpful to archeologists in locating anomalies.

I thought of you and pass along the suggestion that the examination of these photographs might be a project that would interest the University Museum or its Applied Science Center for Archeology. Perhaps some graduate students could undertake it under the supervision of the Science Center.

Hope this is a worthwhile suggestion and that this letter finds you in good health and spirits.

Cordially,


Joseph P. McLaughlin

April 8, 1974

Dr. Dennis E. Puleston
Department of Anthropology
University of Minnesota
210 Ford Hall
Minneapolis, Minnesota 55455

Dear Denny,

I have acid-treated the manganese nodules from Richmond Hill, British Honduras, and find there is 153 grams of material that appears to be inorganic in nature. Even if it contained 2% carbon (as per your maximum C-analysis), it would yield only 3 grams of carbon, and we need at least 8 grams of carbon.

Do you want this material returned to you or discarded?

Sincerely yours,

Barbara Lawn
Radiocarbon Laboratory

BL/klh
CC: Dr. Rainey

College of Physicians & Surgeons of Columbia University

DEPARTMENT OF RADIOLOGY
RADIOLOGICAL RESEARCH LABORATORIES

630 West 168th Street
New York, N.Y. 10032

August 9, 1971

Radio-carbon Dating Laboratory
University of Pennsylvania
Philadelphia, Penna

Gentlemen:-

We are much interested in the Maya calendrical system. According to Dr. Michael Coe, your group has run C-14 dates on a long series of samples of sapodilla wood lintels from Mayan temples, which "give overwhelming support to the Thompson correlation". He states this on page 28 of his book "The Maya" published in 1966, but unfortunately gives no reference by which we can find your work.

Would it be possible for you to give us either a reprint containing this set of dates, or a reference where we can locate them? We would be most grateful.

Yours very sincerely

Edith H. Quimby

Edith H. Quimby
Prof. Emeritus of "adiology (Physics)