

February 22, 1952

Dr. James B. Griffin, Director
Museum of Anthropology
University Museums Building
University of Michigan
Ann Arbor, Michigan

Dear Dr. Griffin:

Dr. Giddings has referred your letter of February 13, 1952 to me. I shall be delighted to attend the radiocarbon symposium which you are planning for May 3.

I suspect that I will learn more from the symposium than I will be able to contribute because I probably will not have determined the age of many, if any, samples by that time. I have just completed the assembly of the equipment and am beginning to test it with coal and modern wood.

Yours very truly,

Elizabeth K. Ralph

UNIVERSITY OF MICHIGAN
MUSEUM OF ANTHROPOLOGY
UNIVERSITY MUSEUMS BUILDING
ANN ARBOR, MICHIGAN, U. S. A.


February 27, 1952

Miss Elizabeth K. Ralph
The College
Randal Morgan Laboratory of Physics
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Miss Ralph:

I am very pleased indeed to learn that you will be at the meetings in Columbus and will be able to participate in the radiocarbon symposium which is scheduled for Saturday morning, May 3. At a later date I will be able to let you know in somewhat more detail how this symposium will be organized and what your contribution can be expected to be. Certainly if you are able to be there in order to participate with the individuals from the other laboratories in an informal session, I am sure you will get more from that than the formal symposium.

Sincerely yours,


James B. Griffin
Director

JBG:js

April 15, 1952

Dr. James B. Griffin, Director
Museum of Anthropology
University of Michigan
University Museums Buildings
Ann Arbor, Michigan

Dear Dr. Griffin:

I have just received the tentative program for the 17th Annual Meeting of the society for American Archaeology in Columbus, Ohio. I shall plan to be there on Friday and Saturday, May 2nd and 3rd.

My equipment is still in the calibration stage. I am looking forward to the discussions with people from other radiocarbon laboratories.

Sincerely yours,

Elizabeth K. Ralph

UNIVERSITY OF MICHIGAN
MUSEUM OF ANTHROPOLOGY
UNIVERSITY MUSEUMS BUILDING
ANN ARBOR, MICHIGAN, U. S. A.

April 20, 1952

Miss Elizabeth K. Ralph
Randal Morgan Laboratory of Physics
The College
University of Pennsylvania
Philadelphia 4, Pennsylvania

answered
by AKB
4/25/52

Dear Mis Ralph:

I am trying to organize a get-together of the radiocarbon people Friday night at the Hotel Deshler-Wallick, so that they will have a chance to meet and discuss some of these matters of particular interest before the meeting on Saturday morning. I have some hopes that perhaps Rainey will be able to attend, for I noticed with some concern that the Pennsylvania laboratory was going to work with materials from Alaska and the Near East. This raises a question as to procedure for various laboratories, for I have heard of one which wanted to work in a western state on materials from that and adjoining states. If such policies as this are set up and are more or less rigid, it would mean that each one would attempt to carve out particular territories to work, and I am not sure that this is a sound way of proceeding.

We shall also be concerned with the question of charges to run specimens from outside groups or individuals, and this is a matter of interest to all. There is also the matter of publication of a journal at a single source for all radiocarbon dates and items of this nature will not only be of interest to the technician in charge of the actual laboratory but also some kind of statement from the responsible administrators of the various laboratories.

I will let you know as soon as I can whether we will have this Friday night session or not. I may not be able, however, to inform you until the meetings in Columbus.

Sincerely yours,

James B. Griffin
James B. Griffin
Director

JBG:js

UNIVERSITY OF MICHIGAN
MUSEUM OF ANTHROPOLOGY
UNIVERSITY MUSEUMS BUILDING
ANN ARBOR, MICHIGAN, U. S. A.

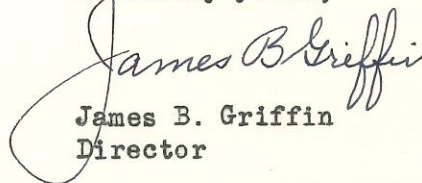
May 9, 1952

Miss Elizabeth K. Ralph
University Museum
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Miss Ralph:

I would like to express my personal appreciation and that of the Society for American Archaeology to you in this somewhat formal manner for your participation in the radiocarbon symposium. You certainly gave exactly what was called for in your talk about the laboratory at the University Museum. I certainly hope that we can have again such a symposium, and I am sure that by that time you will have obtained a considerable amount of information both for the archaeologist and the radiocarbon specialist. It was a pleasure to have you at the meeting and I hope to see you in Philadelphia before too long.

Sincerely yours,


James B. Griffin
Director

JBG:js

December 3, 1953

Dr. H.R. Gault
National Academy of Sciences
National Research Council
Division of Earth Sciences
2101 Constitution Avenue
Washington 25, D.C.

Dear Dr. Gault:

Thank you for your letter of September 30th in which you suggested a conference of people connected with radiocarbon dating. I have just returned from a three-months stay in the British Isles, and I hope you will excuse my delay in writing.

I feel that much can be gained from a conference in which our various problems can be discussed. At the moment the laboratory and technical problems are my chief concern, for I am just beginning to tackle some archaeological series. Discussions of these problems with others would be very beneficial.

In London, I talked with Dr. A.R. Crathorn at the Davy-Faraday Research Lab. and Mr. Barker at the British Museum Research Lab. and saw their acetylene gas counting equipment. I also flew over to Copenhagen to spend a day with Dr. H. Levi at the Zoophysiological Lab., University of Copenhagen, Juliane Maries Vej 32. Dr. Levi is obtaining very satisfactory results, and I feel that she has much to contribute if it were in any way possible for her to attend the conference.

Sincerely yours,

(Miss) Elizabeth Ralph

ER:js

NATIONAL ACADEMY OF SCIENCES
NATIONAL RESEARCH COUNCIL

DIVISION OF EARTH SCIENCES
2101 CONSTITUTION AVENUE, WASHINGTON 25, D. C.

September 30, 1953

Dr. Elizabeth Ralph
University of Pennsylvania
Philadelphia
Pennsylvania

Dear Dr. Ralph:

This office has received a number of suggestions to the effect that a committee to assist in the development of radiocarbon dating might be formed and that a conference of people involved would be of value. Plans were made last spring to hold a conference but action had to be postponed until fall. We are assuming that the scientists foremost in the field would welcome an opportunity to contribute to a discussion of the method itself and to certain aspects of its use. It might be well, also, to discuss recommendations as to the desirability of setting up a Committee on Radiocarbon Dating.

Lacking clear statements of numerous details, there is doubt as to the manner of organization, personnel and objectives of either a conference or a committee. This letter, then, presents an exploratory summary of topics and goals suggested to date. We invite your comment as to their suitability and request that you suggest other topics and describe your ideas concerning various significant details. The several replies will permit preparation of an agenda for an informal work-session type of conference.

Topics for discussion seem to fall into several groups:

1. Laboratory or technical problems: These may be grouped under two headings; those which beset the method as a whole, and those specific problems faced by your laboratory.
2. Problems involving relationships between laboratory results and chronological concepts in several scientific fields: There is no need for lengthy discussion of specific series of dates. However, some of these have been questioned on the basis of archeological, geological and other data. It seems probable that explanation of reasons for the alleged discrepancies in the several kinds of data would be profitable. Topics would include:
 - a. contamination -- natural; i.e., subsequent to deposition and artificial; i.e., during or subsequent to collection
 - b. differences in materials and in their post-depositional environment, and
 - c. stratigraphic relations, correlation problems and contemporaneity of inconsistent pairs.

Dr. Ralph

- 2 -

September 30, 1953

Because of the inevitable budgetary problems, it will be necessary to limit the number of participants. However, we will appreciate receiving from you names of people who might contribute. In order to maintain some continuity with a former committee on Radiocarbon Dating and to take advantage of his experience in planning the conference, it has been suggested Mr. Frederick Johnson should be considered for the chairmanship. We would appreciate alternative suggestions for the chairmanship.

Tentative dates mentioned for a conference are: February 22-23, March 4-5 or March 15-16. The opinions of some persons indicate that, perhaps, the meeting place should be away from Washington or New York.

We shall await your reply at your convenience.

Sincerely,



H. R. Gault,
Executive Secretary

HRG:lp

(Similar letters to:

- Dr. Monte Blau - Yale University
- Dr. H. R. Crane - University of Michigan
- Dr. H. N. Fisk - Humble Oil & Refining Co.,
Houston, Texas
- Dr. J. L. Kulp, Lamont Geol. Observatory,
Palisades, New York
- Dr. W. F. Libby, University of Chicago
- Mr. Terah Smiley - University of Arizona)

cc: Dr. Francis Birch, Chairman
Division of Earth Sciences, NRC

Dr. W. W. Rubey, Chairman
National Research Council

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

Miss Ralph
Dr. R says you
should go by

February 10, 1954

all means
gA

Dr. Elizabeth Ralph
Randall Morgan Laboratory
University of Pennsylvania
Philadelphia, Pennsylvania

Dear Miss Ralph:

Many of you have heard that plans are being made to hold a Conference on Radiocarbon Dating. For the present this is now scheduled to be held in Andover, Massachusetts on March 25th and 26th under the co-sponsorship of the Division of Earth Sciences, N.R.C., the National Science Foundation, and the R. S. Peabody Foundation. Circumstances which could cause postponement are: (1) the acceptability of the proposed dates to the participants and, (2) refusal of an application for supporting funds.

On behalf of the sponsoring organizations, I am extending to you a cordial invitation to attend the conference and take part in the discussions. We expect to be able to reimburse you for travel expenses, however, if those of you who have travel budgets can use them for this purpose, such will ease our financial problems. Various other details are outlined in the several enclosures.

Present plans permit but four sessions of discussion. There is the probability that a fifth session on the morning of March 27th may be useful, if for no other purpose than to summarize the discussions. We request your opinion; should we extend the meeting to noon on March 27th? The limited time available and the scope of the whole program involved, makes it essential that we prepare an Agenda which will provide some order to the discussion and list the essential items. Enclosed, you will find a very rough and preliminary Agenda, which is an attempt to assemble a list of the problems and questions appearing in initial correspondence and conversation. We request that you give some thought to this and send me your reactions. It is to be expected that the Agenda will be completely revised by your frank criticism and comment to which we look forward.

It is important to emphasize that no one listed on the Agenda has been consulted, and it is possible that the suggested topics are either inappropriate or not the most essential. We are sure that such difficulties can be adjusted if you will assist us in organizing the final Agenda. The present plan is based upon several ideas.

First and foremost is a desire for a maximum of informality. We are thinking of a "work-session" type of Conference in which formal papers are replaced by free interchange of ideas. The number of participants has been limited, partly for financial reasons, but more especially with the hope that

a relatively small group will permit a maximum of informal discussion may be possible. To facilitate this latter, it is suggested that one person briefly introduce a specific subject, especially under the first seven major headings. This will then become a matter for consideration by all. The consideration of the significance in the various fields will require a different approach.

Secondly, for practical reasons, we are attempting to propose for discussion only the most urgent, essential, and significant problems. It is our idea that an attempt to consider too many details will result in confusion and that such an endeavor might actually be unproductive. At the same time, we most certainly wish to avoid the pit-fall of talking in generalities which serve no really useful purpose. Will you please consider all aspects of the Agenda in this light, and send me your considered and frank opinion concerning the items listed, and those which have been omitted.

Radiocarbon dating has two very generalized aspects. One involves the basic assumptions upon which the laboratory work is based, and the other comprises the significance of the results to scientific fields other than physics and chemistry. One of the major objectives of the Conference is to discuss problems which several laboratories have. Another is to increase and perhaps facilitate the collaboration among laboratory workers and, also, between physicists and chemists and those who are attempting to apply the results of the dating method. It is our opinion that Archaeologists, Geologists and Botanists can better employ the results of the method if they can understand the laboratory problems. Likewise, those who are analyzing samples need to know more concerning the problems of those who collect them. The Agenda, then, may eventually be divisible into two sections. In doing this, however, we may hope that no one will lose sight for a minute of the essential and basic fact that we are engaged in a collaboration, the scope of which is almost unparalleled.

I hope that this lengthy letter has not discouraged you, that you will be able to join with us in this discussion, and that in any case you will send me your frank criticisms and comments as soon as conveniently possible.

Sincerely yours,



Frederick Johnson

fj:gv
encs,

CONFERENCE ON RADIOCARBON DATING

R. S. PEABODY FOUNDATION, ANDOVER, MASSACHUSETTS

MARCH 25th to 26th, 1954

PRELIMINARY LIST OF PARTICIPANTS TO BE INVITED

W. F. Libby	- University of Chicago	E. Anderson	- Los Alamos
James Arnold	- University of Chicago	G. E. Hutchinson	- Yale University
H. Craig	- University of Chicago	R. F. Flint	- Yale University
J. L. Kulp	- Columbia University	L. Horberg	- Univ. of Chicago
H. R. Crane	- Univ. of Michigan	J. Thorpe	- Earlham College
F. Burlingame	- Univ. of Colorado	E. Haury	- Univ. of Arizona
E. S. Barghoorn	- Harvard University	J. Jennings	- Univ. of Utah
T. L. Smiley	- Univ. of Arizona	D. Baerreiss	- Univ. of Wisconsin
H. Suess	- U.S. Geological Survey	J. Gilluly	- U.S. Geological Sur.
H. N. Fisk	- Humble Oil Company	C. Hunt	- American Geol. Inst.
M. Williams	- Humble Oil Company	W. W. Ruby	- Nat'l. Res. Council
E. N. Wise	- Univ. of Arizona	H. R. Gault	- Nat'l. Res. Council
E. Ralph	- Univ. of Pennsylvania	F. Birch	- Harvard University
T. P. Kohman	- Carnegie Inst. Tech.	H. K. Stephenson	- Nat'l. Science Found.
D. M. Yost	- California Inst. Tech.	H. Alpert	- Nat'l. Science Found.

February 5th, 1954

CONFERENCE ON RADIOCARBON DATING

R. S. PEABODY FOUNDATION, ANDOVER, MASSACHUSETTS

MARCH 25th to 26th, 1954

PRELIMINARY AGENDA

NOTE: This listing of items is an outline including suggestions made during previous correspondence. It is not yet complete nor is the order fixed. Furthermore, and most significantly, the topics have not been discussed with the men to whom they have been assigned. It is sent, however, with the expectation that participants will contribute additional items, suggest a better order of discussion and add all sorts of criticism and comment. It is believed that correspondence and discussion of these items will be of material assistance in organizing a conference in the most efficient manner.

Comments should be sent directly to Frederick Johnson, R. S. Peabody Foundation, Andover, Massachusetts.

A. General Problems:-

1. The Contemporary Assay. J. L. Kulp, H. L. Volchok.
2. Scintillation and other Methods of Counting. J. Arnold,
E. Anderson, W. F. Libby.
3. The Significance of CO₂. Herman Craig
4. Usefulness of Shell in the Dating Method. W. F. Libby
5. Biological Problems Relative to C-14. E. S. Barghoorn.
6. Significance of Plants in Hardwater Lakes. G. E. Hutchinson

B. Specific Laboratory Problems:-

1. Gas Fillers
 - a. Acetylene. H. Suess
 - b. CO₂ F. R. Crane
2. Contamination in Laboratory & Related Matters. R. N. Keller,
F. Burlinghame
3. Some Recently Developed Equipment. H. N. Fiske, M. Williams
4. Other Problems. Please send list to Johnson

C. Consideration of Statistics:-

1. The accuracy of the results in relation to present record. Is use of one sigma adequate?
2. An appeal for the use of a stated date of reference such as 1 A.D.
F. Johnson
3. Other Problems. Please send list to Johnson

D. The Possible Effect of Soils Upon the Dating of Buried Samples. Tentative. Discussant to be invited.

E. Practical Problems in Collection of Samples. Tentative. Discussant to be invited. Comments solicited.

F. Properties of Different Kinds of Materials: Wood, Charcoal, Antler, Bone, Flesh, Shell, etc. A Review of Existing Results. Tentative. (F. Johnson?) Comments solicited.

G. Problems in Field Collection. Discussants to be invited.

PRELIMINARY AGENDA (cont.)

H. The Significance of the Results Relative to Chronological Problems in Several Scientific Fields.

In this discussion, it is proposed that among other ideas, participants will consider problems posed or "solved" by several groups of dates and perhaps suggest in broad outline, work which must eventually be done to complete sequences. The purposes should be, among others:-

- (1) to resolve, perhaps better to abate, controversies concerning the accuracy and "usefulness" of the dates;
- (2) to point out a number of problems in several fields, the date for which is either incomplete or unsatisfactory.

1. Geology
2. Soil Science
3. Oceanography
4. Biology
5. Palynology
6. Archaeology

February 5, 1954

February 16, 1954

Dr. Frederick Johnson
Robert S. Peabody Foundation for Archaeology
Phillips Academy
Andover, Massachusetts

Dear Dr. Johnson:

Thank you for your kind invitation to attend the Conference on Radiocarbon Dating in Andover, Massachusetts on March 25th and 26th. I shall be delighted to attend, and I am in favor of a fifth session on the morning of March 27th. I can arrange to have my travel expenses taken care of, but thank you for the offer.

Your preliminary agenda looks quite satisfactory to me. I am just beginning to obtain results in this lab and am still concerned mostly with laboratory details of the solid carbon geiger counter method. It will be helpful for me to discuss with some members of the group such details as the deterioration of lucite and teflon insulators, and the accuracy of carbon analyses. I am also very much interested in the contamination problem since I have struggled with several types of it here. The discussions of samples, items D, E, and F of the agenda, will also be very helpful.

I am looking forward to the conference.

Sincerely yours,

Elizabeth Ralph

(Miss) Elizabeth Ralph

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

March 3, 1954

Miss Elizabeth Ralph
Randall Morgan Laboratory of Physics
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Miss Ralph:

For various reasons, it is necessary to postpone the proposed Conference on Radiocarbon Dating. The major reason is that action on an application for funds has been delayed, and because of the uncertainty that any action will be taken before the proposed date, March 25th, I cannot commit myself to the necessary expense. A Meeting in April will be difficult to arrange, and there are no free dates during May due to the many Meetings which are already scheduled. Since many of us are already committed to summer projects, it seems wise to postpone the Meeting until Fall, possibly October. I will get in touch with you the last of August.

I am tremendously obliged to all of you for your answers to my request for comments. An analysis of your suggestions indicates that there is a great need for a Conference such as has been proposed. Your discussion has served to point to a number of significant problems which can only be efficiently clarified by discussion. It is certain, also, that consideration of a number of questions by a group representing different approaches will be extremely valuable and productive. Aside from this, your enthusiasm for the idea renders it necessary to hold this Conference, if it can be arranged. We will endeavor to do this.

I hope that postponement at this late date does not inconvenience you unduly.

Cordially yours,



Frederick Johnson

fj:gv

DELAWARE STATE SCIENCE FAIR

GEORGE W. HUTT
CHAIRMAN, PLANNING COMMITTEE

MRS. L. E. CAIN, JR.
CORRESPONDING SECRETARY
217 LLANGOLLEN BOULEVARD
NEW CASTLE, DELAWARE
EA 8-4471

March 3, 1961

Miss Beth Ralph,
Research Physicist,
University of Pennsylvania,
Philadelphia, Pennsylvania.

Dear Miss Ralph:

I am sure you are familiar with the activities of the Delaware State Science Fair. This year the Fair will be held from April 12th - 15th. One very important part of this activity is the judging of the exhibits. This will take place on the evening of April 12th.

We are hoping that you will be able to be one of our judges on this occasion. Please be kind enough to inform me if you will be able to be of assistance to us in this capacity. The Fair will be at Tower Hill School in Wilmington.

Sincerely yours,

Nancy Sawin

(Miss) NANCY SAWIN
Chairman,
Judging Committee.

The Sanford Schools,
Hockessin, Delaware.

NS:BWC

March 8, 1961

Miss Nancy Sawin
The Sanford Schools
Hockessin, Delaware

Dear Nancy:

Thank you for inviting me to assist with the judging of the Delaware State Science Fair again. Unfortunately, I have joined you in the mother illness department. Mother had a stomach operation four weeks ago and is still in the hospital in a very weak condition. Therefore, I can make no plans at the moment, and must decline your invitation. If this is all over with before April, I shall be glad to be a last-minute substitute if needed.

As you can imagine, I haven't done any hockey work recently, and apologize for neglecting the Eagle article.

Hope that your exams went well, and also that your mother is better.

With best regards,

Beth

Beth Ralph

THE ARCHEOLOGICAL SOCIETY OF NEW JERSEY

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301 NORTH EUCLID AVE.
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Director, State Museum

March 21, 1961.

Miss Elizabeth Ralph,
Carbon 14 Laboratory,
University of Pennsylvania,
Philadelphia, Pa.

Dear Miss Ralph:

In behalf of the New Jersey Archeological Society, I am enclosing their check for \$10.00 in appreciation of your giving such an interesting talk, and please accept our thanks.

Very truly,

James L. Clark Jr.

March 23, 1961

Mr. James L. Clark, Jr.
301 North Euclid Ave.
Westfield, New Jersey

Dear Mr. Clark:

Thank you very much for your generous check for my small C-14 talk on Saturday.

Even though I don't enjoy speaking, it is ^{always} ~~also~~ a pleasure to talk to a group such as The Archaeology Society of New Jersey that shows so much interest and enthusiasm.

Sincerely yours,

EKR/lm

Elizabeth K. Ralph

C
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P
Y

YALE UNIVERSITY SCHOOL OF MEDICINE

333 CEDAR STREET · NEW HAVEN CT · CONNECTICUT

*Department of the History of Medicine
Historical Library*

June 6, 1961

Dear Dr. Ralph:

The American Chemical Society, History of Chemistry Division, is planning to hold its third Symposium on Archeological Chemistry in Atlantic City during the second week in September in 1962.

Knowing your interest and work in this field, I should like to extend an invitation to you to contribute a paper to our meeting.

I hope that you will participate in the Symposium and that I shall hear from you shortly.

Sincerely yours,



Martin Levey, Chairman
Third Symposium on Archeological Chemistry

Dr. Elizabeth Ralph
Physics Department
University of Pennsylvania
Philadelphia, Pa.

June 14, 1961

Dr. Martin Levey
Department of the History of Medicine
Yale University School of Medicine
333 Cedar Street
New Haven 11, Connecticut

Dear Dr. Levey:

Thank you for the invitation to contribute a paper at the Symposium on Archaeological Chemistry, sponsored by the American Chemical Society, History of Chemistry Division, in Atlantic City during the second week of September in 1962.

I should be happy to accept except for a possible conflict with a radiocarbon conference in Cambridge, England, which may take place at the same time. Since this is my particular field of interest, it would take priority even though the plans for this will probably not be definite until early in 1962.

If this indecision can be tolerated for the advance planning of your meeting, I am wondering what subject I should talk about. Some aspect of C-14 dating would appeal to me the most - possibly the results of measurements of samples of known age made for the purpose of determining possible past fluctuations in cosmic ray intensity and/or the "effective" half-life of C-14 for dating.

If you prefer a definite commitment at this time, I think it best that I decline your kind invitation. If the two conferences do not conflict, however, I should like very much to attend your Symposium.

Sincerely yours,

(Miss) Elizabeth K. Ralph
Carbon-14 Laboratory

EKR/jw

COPY

YALE UNIVERSITY
DEPARTMENT OF HISTORY OF SCIENCE AND MEDICINE

333 Cedar Street
New Haven 11, Connecticut

June 17, 1961

Dear Miss Ralph:

Thank you for your letter. Your topic sounds very interesting indeed and I hope you will be able to attend and participate in the symposium. I shall get in touch with you in September when you may be able to give me a definite answer.

With best wishes, I am

Sincerely yours,

M. Levey

Martin Levey, Chairman
Symposium on Archeological Chemistry

Miss Elizabeth K. Ralph
Carbon-14 Laboratory
Department of Physics
University of Pennsylvania
Philadelphia 4, Pa.

YALE UNIVERSITY
DEPARTMENT OF HISTORY OF SCIENCE AND MEDICINE

333 Cedar Street
New Haven 11, Connecticut

March 2, 1962

Miss Elizabeth Ralph
Carbon-14 Laboratory
University of Pennsylvania
Philadelphia, Pa.

Dear Miss Ralph,

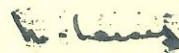
I want to remind you of the symposium on archeological chemistry that is being held on September 13th or 14th in Atlantic City by the History of Chemistry Division of the American Chemical Society.

When I last wrote to you, you were not sure if you could attend. I hope by this time that your schedule is such that you will be able to share your findings with us.

The plans for the symposium are shaping up well and we are expecting papers from scholars in India, Japan, Russia, Poland, and other countries.

I am leaving for India, but if you have any questions, write me. I have made arrangements to have my mail forwarded.

Yours truly,



Martin Levey, Chairman
Symposium on Archeological Chem.

March 6, 1962

Dr. Martin Levey
Department of History of Science and Medicine
Yale University
333 Cedar Street
New Haven 11, Connecticut

Dear Dr. Levey:

The possibility of a conflicting conference has been resolved; that is, my C-14 conference in England is scheduled for July. Therefore, I shall be glad to attend the Symposium on Archaeological Chemistry in Atlantic City on September 13 and 14, 1962.

This will be a timely conference in relation to the program which Dr. F. Rainey, Director of the University Museum, has initiated - namely, the establishment of an Applied Science Center for Archaeology. We hope that one of the main functions of this center will be the acceleration of the application of techniques from the Physical Sciences to archaeological research.

If you want me to contribute a short paper at the Symposium, I think that the best subject for me would be one related to the methodological problems of C-14 dating with, perhaps, a brief announcement of our program in the University Museum.

I shall be in Italy from April through June, working with instruments for underground exploration, but plan to be here for most of July and September.

Sincerely yours,

Elizabeth K. Ralph
(Associate Director of
Applied Science Center
for Archaeology)

EKR:mmm

YALE UNIVERSITY SCHOOL OF MEDICINE

333 CEDAR STREET · NEW HAVEN 11 · CONNECTICUT

Department of the History of Medicine

Historical Library

4 Dec., '63

Dear Miss Ralph:

The book which contains your article presented to the Division of the History of Chemistry should appear some time in '64. I shall be in touch with you when proofs come out.

With regards,

Sincerely,

M. Levey
M. Levey

PROFESSIONAL ACTIVITIES



U. S. ARMY ENGINEER RESEARCH AND DEVELOPMENT LABORATORIES
FORT BELVOIR, VIRGINIA

IN REPLY REFER TO
ERD EM

23 August 1961

Dr. Elizabeth Ralph
Physics Department
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Dr. Ralph:

For many years a great amount of research has been conducted by government and private industry on detection of underground objects, materials and properties. Various organizations in many different fields of science have developed unique magnetic, electro-magnetic, atomic and optical techniques to solve their own particular problems. For example, an archeologist may use photography, employing a narrow band film-filter combination, to detect minute differences in vegetation cover over ancient structures; or a geologist may detect ore bodies by seismic, magnetic or botanical characteristics. However, because this work is conducted in many fields of science, no single literature source exists for dissemination of information. Poor exchange of information leads to duplication of effort and non-utilization of new or improved instrumentation techniques.

In order to clarify the state of this scientific specialty, the U. S. Army Engineer Research and Development Laboratories, are preparing to sponsor a symposium on "Detection of Underground Objects, Materials, and Properties". One session of the symposium will be devoted to on-site detection of underground nuclear explosions.

This letter is written to ascertain individuals who are interested in presenting papers (15-20 minutes), and individuals who are interested in attending such a symposium, tentatively scheduled for the spring of 1962. At this stage of preparation no limits have been set regarding the scope or nature of the papers to be presented. It is hoped that the fields of Biology, Geology, Geophysics, Soils, Archeology, and Nucleonics will be represented. Also, papers will be invited concerning instrument development in the visible, infrared and radar regions of the spectrum.

It is requested that interested individuals fill out the inclosed form and return it to the undersigned, c/o Basic Sciences Section, Mine Detection Branch, U. S. Army Engineer Research and Development Laboratories, Ft. Belvoir, Virginia. Comments concerning fields of interest are invited so that a well balanced program can be arranged.

It is the desire of these Laboratories to sponsor an interesting and scientifically valuable symposium.

Very truly yours,

STEPHEN E. DWORNIK
Program Chairman

1 Incl
Form

PRESERVATION COPY :- 3/17/2014

Please return this form by 15 October 1961 to:

Mr. Stephen E. Dornik
Program Chairman
Basic Science Section
USAERDL
Fort Belvoir, Virginia

~~do not~~

I do plan to attend the USAERDL Symposium.

I would like to present a paper tentatively titled " _____

The following is a short summary: _____

Name Elizabeth K. Ralph

Organization University of Pennsylvania

Dept. of Physics

Address Philadelphia Pa.

Penna.

Telephone

EVERgreen 6-0100 ext 8168

I think that the proposed symposium will be very helpful.
My interest is in the development of instruments for use in
archaeological explorations. ENR

UNIVERSITY OF CAMBRIDGE : DEPARTMENT OF BOTANY

H. GODWIN, F.R.S.
PROFESSOR OF BOTANY

BOTANY SCHOOL
DOWNING STREET
CAMBRIDGE
TELEPHONE 58304

24 October 1961

Dr. E.K. Ralph,
Physics Department,
University of Pennsylvania,
Philadelphia 4,
U.S.A.

Dear Dr. Ralph,

By the summer of 1962 three years will have elapsed since the last Radiocarbon Symposium was held in Groningen, Holland. Many new aspects of the study have already emerged since this occasion, and some of us have felt that by next year the time will be ripe for another such symposium on the lines of its eminently successful predecessors.

There have been several suggestions that Cambridge might prove a suitable place for the meeting, as it did in 1955. These suggestions were prompted in part by the facilities that Cambridge offers in the way of accommodation and lecture rooms, and in part by its convenience geographically. If the climate of opinion proves favourable to having a further Cambridge meeting, then we should begin at once to make plans so as to allow people to make early applications to grant aiding bodies. It is for this reason that we are making an initial approach to you and a few other leading laboratories. Your views on the matter would be greatly appreciated. The time we had in mind was the last week in July (which suits the needs for College accommodation), but this might be somewhat modified if it were the general wish.

We shall look forward to hearing from you at an early date.

Warmest regards.

Yours sincerely,

H. Godwin
E.H. Willis

H. Godwin
E.H. Willis

University Sub-department of Quaternary Research, Cambridge.

Please address your reply to: Dr. E.H. Willis,
5, Salisbury Villas,
Station Road,
Cambridge.



POST

1861

SAVINGS BANK

Dr. E.K. Ralph,

Physics Department,

University of Pennsylvania,

Philadelphia 4,

U.S.A.

First fold here

Second fold here

Sender's name and address: Professor H. Godwin,
Botany School,
Cambridge,
England.

AN AIR LETTER SHOULD NOT CONTAIN ANY ENCLOSURE; IF IT DOES IT WILL BE SURCHARGED OR SENT BY ORDINARY MAIL.

THE 'APSLEY' AIR LETTER

Form approved by Postmaster General No.—71995/1Y

To open cut here

UNIVERSITY OF CAMBRIDGE : DEPARTMENT OF BOTANY

H. GODWIN, F.R.S.
PROFESSOR OF BOTANY

BOTANY SCHOOL
DOWNING STREET
CAMBRIDGE
TELEPHONE 58304

17 November 1961

Dr. E.K. Ralph,
Department of Physics,
University of Pennsylvania,
Philadelphia. 4,
U.S.A.

Dear Beth,

Thank you for your most encouraging reply to our letter concerning the proposed Conference here next summer. The general response has been entirely encouraging, I am happy to say, and we shall go ahead with our plans accordingly. Late July seems to find general agreement too. There will certainly be much to discuss, and the half life determinations will figure quite prominently I think. I have not yet received your reprint on your effective half life, but I blew your trumpet about it in a review article just recently.

We hope to be in a position to send out a general circular in a short while, inviting specific contributions, etc.

Warmest regards.

Yours sincerely,



E.H. Willis.

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.....
Dr. E.K. Ralph,

.....
Department of Physics,

.....
University of Pennsylvania,

.....
Philadelphia 4,

.....
U.S.A.
.....

↕ First fold here ↕

← Second fold here →

Sender's name and address: Dr. E.H. Willis,

.....
Botany School,

.....
Cambridge,

.....
England.

AN AIR LETTER SHOULD NOT CONTAIN ANY
ENCLOSURE; IF IT DOES IT WILL BE SURCHARGED
OR SENT BY ORDINARY MAIL.

THE 'APSLEY' AIR LETTER



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WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

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NL	= Night Letter
LT	= International Letter Telegram

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1962 FEB 26 PM 1 18

PA057 LC048

L LLY038 PD=TDL WUX WEST LOS ANGELES CALIF 26 953A PT:
 =DR ELIZABETH RALPH=
 UNIVERSITY OF PENNSYLVANIA DEPT OF PHYSICS PHILA:
 =MISS RALPH CHANNEL ISLAND CONFERENCE WILL BE HELD
 WEDNESDAY FEBRUARY 28 FOR ONE DAY:
 = FEGUSSON.

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

RGA

October 22, 1962

Dear Miss Ralph,

A small expression of my
appreciation for your very
educational talk at the
New Century Club. It was most

gracious of you to come at
such short notice.

Again, my personal thanks
as Chairman of my committee,

Sincerely
Ruth G. Anthony

Since late Mar, 1962



U. S. ARMY ENGINEER RESEARCH AND DEVELOPMENT LABORATORIES
FORT BELVOIR, VIRGINIA

IN REPLY REFER TO
ERD EM

Arch Technyis
'62

SUBJECT: Detection Symposium

TO: Miss Elizabeth K. Ralph
University of Pennsylvania
Department of Physics
ATTN: Mrs. Anna Delavigne
Philadelphia 4, Pennsylvania

1. We would like to take this opportunity to thank you for participating in the symposium on "Detection of Underground Objects, Materials and Properties, held at these Laboratories on 19-20 March 1962. It was the consensus of the attendees that this meeting was beneficial in the exchange of scientific information.

2. As stated by Mr. Benjamin Goldberg, these Laboratories plan to publish the meeting proceedings. If you desire to have your paper published in these proceedings, you must forward one copy typed on the inclosed USAES Form 26 to the Symposium Committee, Mine Detection Branch, USAERDL, Ft. Belvoir, Virginia, by 10 May 1962. No manuscript style format is suggested, but it is requested that you follow the title, author, and organization heading as we have shown on the attached sample.

3. Only original photographs or negatives should be supplied for illustrations. Spaces should be left in the body of your report for illustrations. Do not glue the illustrations in their proper place, merely indicate where each should be. Illustration captions should be typed on separate paper and attached to each photograph.

FOR THE COMMANDER:

1 Incl
USAES Form 26

Oscar P. Cleaver
OSCAR P. CLEAVER
Chief, Electrical Department

NEW INSTRUMENTATION TECHNIQUES IN ARCHAEOLOGY

Froelich Rainey

Elizabeth Ralph

The problems of archaeological prospecting are somewhat different from many of those which have been discussed here. In most cases the objects sought are smaller & are located at less depth.

During the past ten years, two instruments have been adapted and developed specifically for underground exploration in archaeology. Not long after the last war Dr. Paul Fejos of the Wenner-Gren Foundation attempted to interest American archaeologists in such instruments without much success, but British, German, and Italian diggers became interested and we now have a small portable, transistorized, resistance apparatus, made in Germany, *called a Geohm,* and a proton-magnetometer made in England, *to which I might add, the Varian proton magnetometer.* which are thoroughly proven and successful tools for archaeological surveys. *increasing use & development of* I believe that these new techniques for archaeological exploration may eventually have as much effect upon the study of prehistory as the now famous radio-carbon and potassium argon methods for dating ancient remains.

There are in all continents rich sedimentary plains at the mouths of rivers or along the sea where we may expect to find ancient settlements deeply buried beneath the silt. Conventional archaeology, to a large extent, has bypassed these rich plains where we might expect to find some of the oldest and most developed cultural deposits because there is often no evidence of the ancient remains visible upon the surface. At this stage we have two problems; to develop simpler and more efficient instruments, and to convince the diggers that the techniques can be utilized by people who are not trained in geophysics.

At the University Museum we have recently established an Applied Science Center for Archaeology to carry on research and development in various new techniques applicable to archaeology. Part of our investigation during the past two years has been the testing of the resistance equipment and the proton-magnetometer for underground archaeological explorations. To do this we have joined up with the

New Instrumentation, Raimey-Ralph

Lerici Foundation in Rome, directed by Engineer C. M. Lerici, a manufacturer of geophysical equipment and steel products in Milano. For about five years he has been using resistance equipment to locate and explore Etruscan tombs in Tuscany and he has demonstrated without any doubt the efficiency of these instruments for this specific job. In the summer of 1961, our crew from ASCA at the University Museum joined the Lerici crew at Tarquinia and Cervetri north of Rome to compare the new German ~~resistance instrument~~ ^{Geohm} with the more elaborate and costly ^{resistance} instrument used by the Lerici Foundation. We ran a series of parallel tests at Tarquinia and soon learned that the much simpler and less expensive ^{Geohm} German ~~instrument~~ designed specifically for archaeology was equally as efficient as the Italian instrument. At Tarquinia there is a vast Necropolis with many hundreds of Etruscan tombs dating from the first century before Christ, cut into the bedrock below ~~some~~ one, two, or three meters of surface soils, which are essentially volcanic in origin. When the Etruscans made these tombs they cut a long narrow ramp or stairway down into bedrock, then hollowed out a rectangular tomb in the bedrock with a stone door. The tombs lie anywhere from one and a half to five meters below the surface. With the resistance instrument we ran lines of readings across the Necropolis which enabled us to pick up the earth-filled ramps leading to the subterranean tombs. Apparently the earth-filled ramps give higher conductance readings than the surrounding bedrock and hence we were able to locate on graphs the position of these ramps. Once these were located it was a simple matter with a minimum of excavation to locate the position of the tomb. Once we had located ~~that~~ ^{them}, by using a power-driven earth auger to drill down ~~through the roof~~ ^{into} of the tomb, we ~~then~~ inserted a periscope with an electric light at the base which made it possible to examine the contents of the tomb

New Instrumentation, Rainey-Ralph

without excavation. With a system of mirrors we were also able to photograph the inside of the tomb and even to broadcast over television the view of the inside of an unexcavated tomb, simply by applying the television camera to the periscope.

^{when} ~~Once~~ we had demonstrated that the small inexpensive ^{German} ~~resistance~~ equipment was as good and even more efficient than the elaborate Italian equipment, we turned to experimentation with the British-built proton-magnetometer. Under ^{suitable} ~~certain~~ conditions, this instrument is much more ^{rapid to use} ~~efficient~~ than the resistance equipment because you need only one ^{probe} ~~ground contact~~ rather than four to take a reading of the magnetic intensity. Our system was to lay out a grid measuring fifty by fifty meters and take a magnetic reading at one meter intervals. We then drew up a magnetic contour map of the fifty meter grid. It became evident from these contour maps that we were ^(accurately) spotting the location of the tombs themselves rather than the earth-filled ramps. With the earth auger we could then drill ^{into} the tombs without any excavation whatever. We found it was possible to make a magnetic grid fifty meters square in about one day and on the average we could locate and explore five or six tombs in one day. This was obviously much more efficient than the resistance method. We suspect that it was possible to detect the location of the tombs on our magnetic grids, so accurately that we rarely missed a tomb in any of our drilling operations, because this was a region of volcanic origin with high magnetic intensity. This is the reverse of the usual application of this instrument for the location of iron objects, pottery deposits, or soil disturbances, that is, features which exhibit higher magnetic intensities than the surrounding earth.

Similar tests were made at Cervetri where bedrock and surface soils differ considerably. However our results at Cervetri were equally successful and

New Instrumentation, Rainey-Ralph

it seems that from now on the proton-magnetometer will replace the resistance equipment in the exploration for these Etruscan tombs at several sites in Tuscany.

From the Etruscan area north of Rome, we switched our operations to the plain of Sybaris in Calabria in the south of Italy. There we know from Greek and Roman records that the Greek city of Sybaris was destroyed by the Crotoni in the sixth century before Christ. The ruins are supposed to lie somewhere near the Crati river on a broad plain where the overflow of the river in the spring has created very deep sedimentary deposits of largely volcanic soils. Our problem there ^{is} ~~was~~ to locate the actual site of the city which should be composed of ruined stone buildings, pavements, walls, and so forth, probably now lying several meters below the surface. During the preceding spring the ^{engineers of the} Lerici Foundation, ~~engineers~~ utilizing the resistance equipment, had located a segment of buried stone wall on this plain. In October, ^{with} ~~utilizing~~ the proton-magnetometer, we were able to trace that buried wall for eight hundred meters. At some points the top of the wall lay only a meter under the surface but at other points it was buried as deep as three meters. Test excavations showed that the anomaly recorded by the proton-magnetometer (very precisely) ^{located} ~~located~~ the wall, but in these test excavations we ^{did not} ~~never~~ succeed ~~ed~~ in locating the base of the wall because there were no pumps available to carry away the water in our deepest excavations. We did manage to reach a depth of four and a half meters at one point on the wall, but we have no idea how much deeper it may go. The construction of the wall and the pottery found with it ^{suggest} ~~indicate~~ that it is of Roman construction at the upper levels, but there are some indications that the lower part of the wall was built some centuries before Christ and we believe that the base of it may have been built in the sixth century ^{B.C.} ~~before~~

New Instrumentation, Rainey-Ralph

~~Christ~~. Its function remains a mystery. We have not yet found either end, nor the base, but we know that it is a major work on the plain of Sybaris and must have some connection with a series of ~~several~~ cities built there during several centuries. It may be a retaining wall for the Crati river, or a harbor wall.

SLIDES

It is now our plan to return to Sybaris in April with a gradiometer, a differential-type proton-magnetometer, and with adequate pumps and excavating equipment, so that we can probe the lowest levels on the plain. We also expect to follow the wall as far as possible with these electronic instruments, ~~but together with the instruments,~~ ^{shall use} we are using two or three different types of drills to probe the anomalies discovered with the instruments.

In the meantime, at the ASCA we have developed a ~~sonic instrument~~ ^{device which} utilizing ^{RF} impulses at ultrasonic frequencies to locate underground features. This will also be tested at Sybaris this spring. Our investigations so far indicate that each of the two proven instruments has certain limitations depending upon the type of site. For example, the resistance apparatus ~~depends upon certain conditions of soil and humidity,~~ ^{is affected by ground moisture} and in some cases where we have very dry soils it will not operate at all. Moreover at distances of three or four meters an object less than a meter in diameter cannot be spotted because its bulk relative to the volume of the soil being measured for conductance is not sufficient to ^{be} record ^{ed} as an anomaly. The proton-magnetometer ~~was~~ ^{is} limited in depth penetration. We could rarely pick up any feature from below three meters in depth. Also, this instrument naturally depends upon contrasts between magnetic and non-magnetic materials. ^{For the previous tests} In Italy the conditions ^{were} for the proton-magnetometer ~~seemed to us~~ ideal because we had non-magnetic features

non-magnetic stone features buried in magnetic soils. In other sites these conditions naturally do not prevail and the instrument is therefore not useful. We have hopes that the high-frequency sonic device, unaffected by ground moisture and magnetic conditions, will be useful in most sites. ^{with it,} We expect also to get greater penetration.

^{In other areas,} There is a need also for a sensitive metal detector to locate small non-ferrous objects at depths of 1 meter and larger artifacts at 2-3 meters.

^{From} ~~With~~ our investigations so far, we conclude that these electronic instruments have been ^{provided} ~~proven~~ as a more efficient way to carry out archaeological surveys in those areas where there are no archaeological features obvious on the surface, but that improvements and simplifications are necessary if they are to be adopted widely by field archaeologists. We think that the high-frequency sonic device may fill some of these requirements and, at least, it is one step in the right direction. The great advantage of this is speed in carrying out a survey in any given area but more than that, with the improvement of such instruments we should be able to discover very important ancient remains on these sedimentary plains which would be impossible to locate ^{by} ~~with normal~~ conventional archaeological methods.

March 30, 1962

Mr. Stephen E. Dwornik,
USAERDL
Fort Belvoir, Virginia.

Dear Mr. Dwornik:

Thank you very much for inviting me to attend your excellent symposium on "Detection of Underground Objects, Materials and Properties". It was the best organized conference that I have ever attended, and the diversity of the fine papers presented provided an excellent stimulant for thinking in broader terms about these detection problems.

Mrs. Anne Delavigne (Dr. Rainey's secretary), University Museum, has the copy of our speech, and will be glad to prepare the transcript for publication. If it should go astray in the University mail, please contact her. I regret that I shall be in Italy and won't be able to follow it up.

Sincerely yours,

EKR:LF

Elizabeth K. Ralph

C
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January 3, 1963

AIR MAIL

Dr. Adela Slicpeevic
Institut Ruder Boskovic
Bijenicka cesta 54 - P.O.B. 171
Zagreb, Yugoslavia

Dear Dr. Slicpeevic:

The talk which I gave at the Radiocarbon Dating Conference was an informal one and I do not have a written copy of it.

I have, therefore, enclosed a copy of a similar talk which I gave recently.

Sincerely yours,

Elizabeth K. Ralph

Encl.

EKR/deh

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Columbia University in the City of New York | New York 27, N.Y.

DEPARTMENT OF ANTHROPOLOGY

Jan. 4, 1963

Dear Dr. Ralph,

Thanks again very much for contributing and participating in the symposium. We all seemed to have an enjoyable time of it, and I think that we have accomplished our purpose, thanks to you and the others.

If you have a spare copy of your paper, I would like to read it -- I am wondering what the trouble is with the dynastic periods dating of the Egyptians?

With best wishes,

Very sincerely yours,



Ralph Solecki

CENTRAL HIGH SCHOOL
TRENTON 9, NEW JERSEY

PROFESSIONAL ACTIVITY

VINCENT A. HALBERT
PRINCIPAL

January 8, 1963

Dr. Elizabeth K. Ralph
University of Pennsylvania
Philadelphia 4, Pennsylvania

Dear Dr. Ralph:

It was very kind of you to accept my letter of request to speak at the Trenton Rotary Club.

Since I wrote to you, our schedule of programs have filled up very rapidly, and our dates for the next three months have been completed.

I hope that we shall be able to invite you for a date later in the year. Thank you for your kindness in this matter.

Sincerely yours,



Vincent A. Halbert
Principal

H:l

December 27, 1962

Mr. Vincent A. Halbert
Principal
Central High School
Trenton 9, New Jersey

Dear Mr. Halbert:

In regard to your request for me to speak to the Trenton Rotary Club on the subject of Carbon-14 dating, I am writing to say that January is a busy month for me because of previous writing commitments, the need to be in Texas for two weeks, and so forth. However, I could come on February 14, 1963.

My usual fee for this talk is \$150.00.

Sincerely yours,

Elizabeth K. Ralph

EKR:dml

C
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PROFESSIONAL ACTIVITIES

WELLESLEY COLLEGE ALUMNAE ASSOCIATION
GREEN HALL - WELLESLEY 81 - MASSACHUSETTS
OFFICE OF THE WELLESLEY ALUMNAE MAGAZINE

February 12, 1963

Miss Beth Ralph
The University Museum
University of Pennsylvania
33rd & Spruce Streets
Philadelphia 4, Pennsylvania

Dear Miss Ralph:

Thank you very much indeed for your most interesting article and the fine selection of pictures. I am looking forward to presenting this article in the Alumnae Magazine.

My most sincere thanks for all your wonderful cooperation with us.

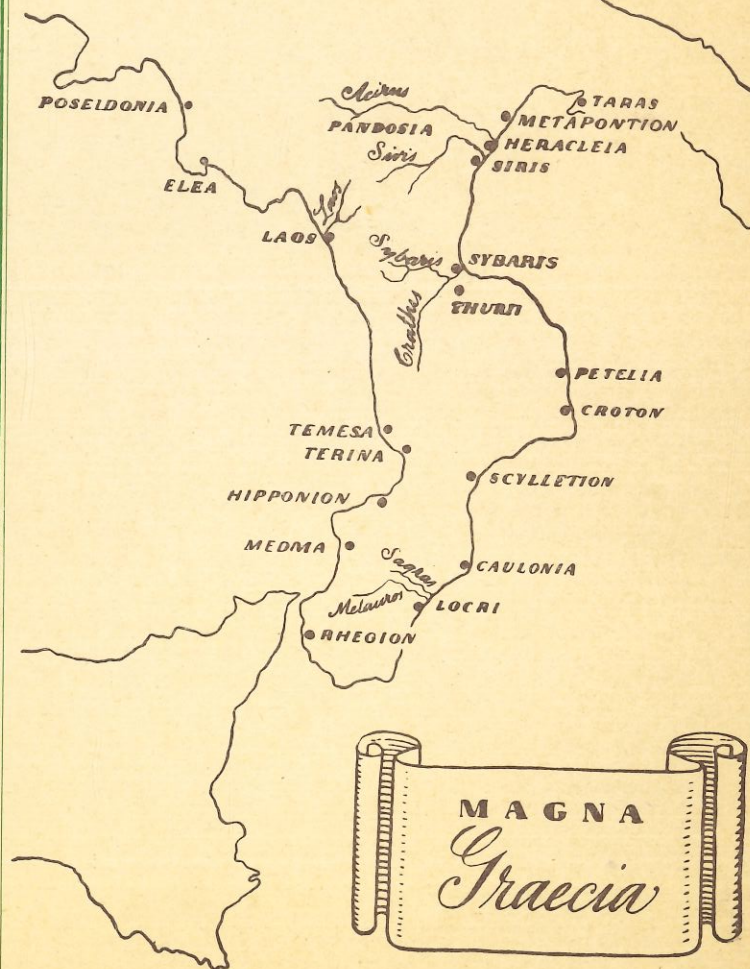
Yours very sincerely,


Mary C. Lyons, Editor

MCL/s

ENTE STUDI ECONOMICI
PER LA CALABRIA

CONVEGNO DI SIBARI



10 - 11 OTTOBRE 1965

PROMOTORI

ENTE STUDI ECONOMICI PER LA CALABRIA
ASSOCIAZIONE "RITORNO A SIBARI,,

TEMA DEL CONVEGNO

**" LA PIANA DI SIBARI
NELLE PROSPETTIVE DI SVILUPPO
CALABRO-LUCANE ,,**



GLI ATTI DEL CONVEGNO SARANNO PUBBLICATI

Durante i lavori del Convegno saranno lette comunicazioni di:
Giornalista Mario Borretti « *Il cammino dell'arte calabro-lucana* »;
Dott. Franco Martino « *La zootecnica fattore fondamentale dello sviluppo
mercantili dei prodotti calabresi* »; Prof. Giuseppe Rogliano
« *Il Commercio* »

SIBARI -
VILLAGE

Ore 9,30 - Seduta

Ore 10,30 - Incontro

Alvaro Pànc

Aladino Bur

« *Attualità* »

Ore 11,30 - RELAZIONE

Ing. Agatino
geofisiche

Ore 12,15:

Prof. Angelo
« *Sibari e
Mediterranea* »

Ore 13 - Sospensione

Ore 15,30 - RIPRESENTAZIONE

Dott. Franco
di sviluppo

Ore 16,30 - Dott. Martino
*zazione di
di Sibari*

Ore 17 - Interazione

Ore 19,30 - Chiusura

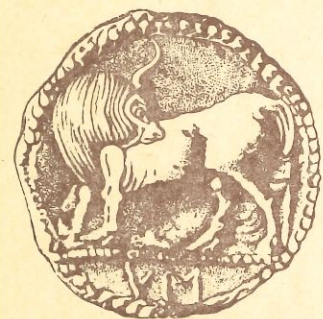
PROGRAMMA

OTORI

UDI ECONOMICI PER LA CALABRIA
AZIONE "RITORNO A SIBARI..

TEMA DEL CONVEGNO

LA PIANA DI SIBARI
PROSPETTIVE DI SVILUPPO
CALABRO-LUCANE,,



I DEL CONVEGNO SARANNO PUBBLICATI

SIBARI - DOMENICA 10 OTTOBRE 1965

VILLAGGIO BONIFICA - PRESSI STAZIONE FF.SS.

Ore 9,30 - Seduta inaugurale.

Ore 10,30 - Introduzione al Convegno

Alvaro Pàncaro, dell'Ente Studi: «*Scopi del Convegno*»

Aladino Burza, Presidente Associazione «Ritorno a Sibari»:
«*Attualità del ritorno a Sibari*»

Ore 11,30 - RELAZIONI.

Ing. Agatino D'Arrigo, coprogettista del porto di Sibari: «*Cause geofisiche e valore dell'alto fondale marino a Sibari*».

Ore 12,15:

Prof. Angelo Rocca, del Centro Studi «Incontri Mediterranei»:
«*Sibari possibile punto di confluenza dei traffici petroliferi del Mediterraneo*».

Ore 13 - Sospensione dei lavori.

Ore 15,30 - RIPRESA DEI LAVORI

Dott. Francesco Feraco, dell'Ente Studi: «*Sibari e le prospettive di sviluppo agricolo ed industriale della piana*».

Ore 16,30 - Dott. Giuseppe Gomez, Presidente Nucleo Industrializzazione di Sibari: «*Progetti di industrializzazione della piana di Sibari*»

Ore 17 - Interventi e discussioni

Ore 19,30 - Chiusura dei lavori della prima giornata

COSENZA - LUNEDI 11 OTTOBRE 1965

PALAZZO DEI BRUZI

Ore 9,30 - Ripresa dei lavori.

Ore 10 - RELAZIONI.

E.K. Ralph

Carlo Maurilio Lericci: «*Risultato delle prospezioni geofisiche nella piana di Sibari, eseguiti dalla Fondazione Lericci del Politecnico di Milano*».

Prof. Dott. Francesco S. De Gaudio, della Facoltà di Agraria e Forestale della Università di Firenze:
«*L'economia montana e forestale della Calabria*».

Ore 11,30 - Interventi e discussioni.

Ore 13 - Sospensione dei lavori.

Ore 16 - Interventi e discussioni.

Ore 19 - Prenderanno la parola:

L'On. Avv. Giacinto Froggio, Presidente della Cassa di Risparmio di Calabria e di Lucania;

L'Avv. Michele Cozza, Presidente del Comitato regionale per la programmazione della Calabria.

Ore 20 - Chiusura del Convegno.

Durante i lavori del Convegno saranno lette comunicazioni di:

Giornalista Mario Borretti «*Il cammino dell'arte calabro-lucana*»; Avv. Gaetano Fagiani «*La classifica del porto di Sibari a porto rifugio*»; Dott. Franco Martino «*La zootecnia fattore fondamentale dello sviluppo agricolo della piana di Sibari*»; Dott. Luigi Palermo «*Prospettive mercantili dei prodotti calabresi*»; Prof. Giuseppe Rogliano «*I fondali della rada di Sibari dono della natura*»; Ing. Terenzio Tavolaro «*Il Comprensorio Urbanistico di Sibari*».



THE ARCHAEOLOGICAL SOCIETY OF DELAWARE

AFFILIATED WITH THE EASTERN STATES ARCHEOLOGICAL FEDERATION

MINGUANNAN CHAPTER
TANCOPANICAN CHAPTER

ADDRESS P.O. BOX 301
WILMINGTON 99, DEL.

R. D. #1
Landenberg, Penna. 19350
August 4, 1966

Miss Jeannette M. Flamm
Applied Science Center for Archaeology
The University Museum
33rd & Spruce Streets
Philadelphia 4, Penna.

Dear Miss Flamm:

Many thanks for your letter of August 2nd. I would still like to have Miss Ralph speak to our society on November 19th if it is possible.

Thanks again for answering my letter, and I will wait until late September or early October for a committment.

Sincerely yours,

A handwritten signature in cursive script, reading "Marianna N. Akerman".

Marianna N. Akerman
Program Chairman

THE ARCHAEOLOGICAL SOCIETY OF DELAWARE

AFFILIATED WITH THE EASTERN STATES ARCHAEOLOGICAL FEDERATION

P.O. BOX 301 - WILMINGTON, DELAWARE 19899



MINGUANNAN CHAPTER

TANCOPANICAN CHAPTER

R. D. #1
Landenberg, Penna. 19350
October 20, 1966

Miss Elizabeth K. Ralph
Associate Director
Applied Science Center for Archaeology
The University Museum
33rd & Spruce Streets
Philadelphia 4, Penna.

Dear Miss Ralph:

This letter is to confirm our telephone conversation on October 14, 1966.

We now have you slated as a guest speaker to the Archaeological Society of Delaware on February 18, 1967. Your speech has not been titled as yet, so would you please give us the title around January 4th. Also see that we get any publicity you have concerning yourself at this time for our newspapers.

I will be talking to you later about where we can meet. Jim and I will be expecting you for the weekend.

Hoping to see you sometime this Fall at the Pusey House.

Sincerely,

A handwritten signature in cursive script that reads "Marianna N. Akerman".

Marianna N. Akerman
Program Chairman

A

work 999-4129

THE ARCHAEOLOGICAL SOCIETY OF DELAWARE

AFFILIATED WITH THE EASTERN STATES ARCHAEOLOGICAL FEDERATION

P.O. BOX 301 - WILMINGTON, DELAWARE 19899



MINGUANNAN CHAPTER

TANCOPANICAN CHAPTER

R. D. #1
Landenberg, Penna. 19350
January 18, 1967

Miss Elizabeth K. Ralph
Associate Director
Applied Science Center for Archaeology
The University Museum
33rd & Spruce Streets
Philadelphia 4, Penna.

Dear Miss Ralph:

This letter is to confirm our telephone conversation of January 13, 1967.

We are looking forward to seeing you on February 18th at our home. We plan to have dinner at 6:00 o'clock. Enclosing directions to our place and phone number in case you get lost. Plan to stay overnight with us if possible.

I forgot to tell you that our Society furnishes a slide projector and large screen. I assume your talk will be illustrated. Also we have glass covered exhibit cases at your disposal. Kindly let us know what equipment you need, so we can be sure to have it available that night.

Please forward any publicity you have concerning yourself in the next mail as we need this information for our Society bulletin announcing the meeting and later for the newspaper.

Will see you on February 18th.

Sincerely,

Marianna N. Akerman
Program Chairman

A
Enc.

5174-83

December 10, 1966

Mr. John Huston
Council of Underwater Archaeology
419 Presidio Avenue
San Francisco, California 94115

Dear John:

It was fun to see you in Cenchreae, and I regret that we couldn't stay long enough to try out the cesium magnetometer.

It will probably be a month or so before we have time to date your samples of pottery. There are many conflicting opinions about the effect of salt water, but one thing we do know from our own measurements is that continuous submergence in not-very-fresh water has no effect at all upon the thermoluminescence.

About giving a paper in Miami, I am also uncertain at the moment because field work plans for the spring and summer have not yet been decided upon. When is the deadline for this decision?

Sorry I wasn't here when you came, but hope that you'll come again soon.

With best regards,

Beth

EKR/gm

COUNCIL OF UNDERWATER ARCHAEOLOGY

~~2647 PIERCE STREET, SAN FRANCISCO, CALIFORNIA, WA 2-4560~~
418 PRESIDIO AVE., SAN FRANCISCO, CALIF. 94128
(415) 822-2943

415-922-2943

JOHN HUSTON
President

December 19, 1966

Miss Beth Ralph
University Museum
33rd and Spruce Streets
Philadelphia, Pennsylvania

Dear Beth:

Thanks for your letter of December 10. I am sorry that your plans are uncertain and I certainly would like to see you in Miami, because I think the work that you're doing would be very important to underwater archaeological research. Undoubtedly there has to be a lot of correlation done, but I think the paper would be worthwhile, even though you may still be dealing with a hypothesis instead of established fact.

I don't know exactly how long the program will remain open. We cut the number of speeches from 42 to 30, but sometimes we don't know exactly about our program until fairly late, since we always invite a few more than we think will come, knowing that there will be a few last-minute drop-outs. I suggest that you let me know as soon as you have a better idea of your own situation.

Will you keep me informed, and maybe you can write me again at the end of a month.

Best regards,

Sincerely,


John Huston

JH:k

January 24, 1967

Mr. William Gilchrist
New Everglades Hotel
Miami, Florida

Dear Mr. Gilchrist:

I am planning to attend the Third Conference on Underwater Archaeology in Miami. I shall appreciate it if you will reserve a single room for me at the New Everglades Hotel from March 22 to March 26, 1967.

Sincerely yours,

(Miss)Elizabeth K. Ralph

EKR:lm

January 24, 1967

Mr. John Huston
Council of Underwater Archaeology
419 Presidio Avenue
San Francisco, California 94115

Dear John:

Our spring and summer field plans are now shaping up at last, and it is quite certain that I shall be here in March.

Therefore, I shall be glad to give a short paper at the Third Conference on Underwater Archaeology if your program is still open. If not, please don't hesitate to tell me.

With best regards,

Beth Ralph

EKR:lm

P.S. Old photo enclosed.

The Third Conference on Underwater Archaeology

March 23, 24 and 25, 1967

Sponsors
University
of Miami

and
Council of
Underwater
Archaeology

New Everglades Hotel
Miami, Florida

Supporting
Institutions
International
Oceanographic
Foundation
Confédération
Mondiale des
Activités
Subaquatiques
The Underwater
Society of America

February 28, 1967

Miss Beth Ralph
University Museum
33rd And Spruce Streets
Philadelphia, Pennsylvania

Dear Beth:

I want to tell you that I am extremely sorry that you are not going to come to Miami. I mentioned to you last summer, I think, (or some other time) that I wanted you to come and give a paper. When I talked to you by phone recently I may have sounded a little frantic about the program, but my frustration with programming should never interfere with your knowing that I really wanted you there - and still do.

If you can still come and give a paper, I will pay your hotel bill, even if I have to pick up the tab myself. I think what you have to offer would be very valuable, and personally I would like to see you in Miami. You would be the only girl!

Best regards, and let me hear from you,

Sincerely,


John Huston

JH:k

*Cancel hotel
reservation*

Program Coordinator
William R. Gilchrist
Conference Coordinator
University of Miami
Coral Gables, Florida

Program Chairmen
Dr. John Hall and John Huston
Council of Underwater Archaeology
419 Presidio Avenue
San Francisco, California

94123

March 11, 1967

Mr. J. J. Edward, Assistant Manager
New Everglades Hotel
Miami, Florida

Dear Mr. Edward:

It is with regret that I must cancel my reservation from March 22 to 26, 1967. I find that I have a conflicting engagement and cannot attend the Underwater Archaeology Conference.

Sincerely yours,

Elizabeth K. Ralph

EKR/gm

March 14, 1967

Mr. John Huston
Council of Underwater Archaeology
419 Presidio Avenue
San Francisco, Calif.

Dear John:

Many thanks for your good letter of February 28th. I do wish that I could attend the conference, but it is now hopeless.

Our field trip has been changed slightly. We now leave on the 23rd and start work on the 24th - no chance to come to Miami. Unfortunately, a lot of people are involved in the field trip and this is the only time that could be arranged.

With best regards,

Beth Ralph

THE THIRD CONFERENCE ON UNDERWATER ARCHAEOLOGY

March 23, 24 and 25, 1967

New Everglades Hotel

Miami, Florida

The Third Conference On Underwater Archaeology will be held on March 23, 24 and 25, 1967 at the New Everglades Hotel in Miami, Florida. The University Of Miami and the Council Of Underwater Archaeology will act as co-sponsors of this biennial meeting. Supporting institutions are the International Oceanographic Foundation, the Underwater Society Of America and the Confederation Mondiale des Activites Subaquatiques.

Among those invited to speak are such well-known authorities as: Dr. N. Yalouris of the National Museum at Olympia, Greece; Dr. Nicholas Flemming, eminent British geologist; Dr. E. T. Hall, British geophysicist doing archaeological research at Oxford University; Anna Rosenqvist, Norwegian ship archaeologist; Dr. Walter Kenyon of the Royal Ontario Museum; and Mendel Petersen of the Smithsonian.

Some of the interesting topics to be covered are: European and American sites of primary importance including a Bermuda 16th Century wreck, Port Royal, Cenchreae and Byzantine ships; excavation and interpretation of animal bones; preservation of underwater artifacts; legal aspects and looting; magnetometry; photogrammetry; and seismographic sub-bottom profilers.

The last meeting, held in Toronto in 1965, drew 400 registrants from nine countries. Papers read there, as well as additional papers, will be published in two volumes by Argonaut Press, with an expected publication date of early 1967.

We invite those who wish to attend the coming meeting to contact Mr. William Gilchrist, Conference Coordinator, University Of Miami, Coral Gables, Florida.

Those who have done work in underwater archaeology or related fields and feel that they have valuable material to present to such an audience should write to:

Mr. John Huston & Dr. John Hall, Program Directors
Council Of Underwater Archaeology
419 Presidio Avenue
San Francisco, California 94115

THIRD CONFERENCE ON UNDERWATER ARCHAEOLOGY
Sponsored By The University Of Miami And
The Council Of Underwater Archaeology
March 23, 24 and 25, 1967
New Everglades Hotel
Miami, Florida

Dear Sir:

We are pleased that you can present a paper at the 1967 Conference, and we have scheduled your appearance. This letter is an explanation. It is also a questionnaire which you need to fill out in order to confirm your appearance as a speaker.

(1) Conference dates are March 23, 24 and 25, 1967, and the meetings will be held at the New Everglades Hotel in Miami, Florida.

(2) The first papers will be given on the morning of March 23. However, March 26 is being held open for a series of round-table conferences and private meetings among the speakers at the host hotel, for our own personal enrichment. The public will not be invited. This will allow time for discussion of the following topics: (a) personal archaeological problems; (b) a program for the handling of looting; and (c) suggestions for the next Conference. All speakers are considered to be members of the Council Of Underwater Archaeology, with the responsibility of helping to make these Conferences more effective. Therefore, we urge each participant to reserve Sunday the 26th for this meeting, which will begin at 10:00 A. M.

(3) Registration will begin at 5:00 P.M. on March 22, and we strongly urge that you arrive as early as possible. The Committee finds that it is sometimes necessary to iron out a few conflicts in the material covered by the speakers. We also wish to give everyone a chance to become acquainted and to meet with others who have information to give. There will be a ~~no-host~~ cocktail party at the hotel for you and other speakers, beginning at 5:30 P.M. on Wednesday evening, the 22nd.

(4) If, for any reason, you find that you cannot arrive before 7:00 P.M. on Wednesday, March 22, please let us know. If the delay is not known until the last week, please wire John Huston at the New Everglades Hotel in Miami.

(5) Please make your own reservations at the New Everglades Hotel through Mr. William Gilchrist. The rates are \$12.00 single and \$16.00 double. We will arrange for you to share a room if desired.

(6) The purposes of the meeting are as follows:

(a) To exchange information with known experts in the underwater and allied fields, such as archaeology, anthropology, electronics, engineering and geology;

(b) To instruct and stimulate students of archaeology;

(c) To increase the literature in underwater archaeology by publishing the results. The Council intends to publish the papers read and the signature of the speaker to this letter (bottom of questionnaire) constitutes permission to publish the paper read. (Publication of the 1965 Conference papers by Argonaut Press is expected early in 1967.)

(d) To create a respect for archaeology in amateur divers in order to increase cooperation between the diver and the professional and thus to help prevent looting.

(7) In designing your paper, please note that the Committee seeks new, fresh material. The audience (400 in 1965) will be approximately one-half archaeologists and kindred specialists, one-fourth highly-experienced amateurs and one-fourth archaeology "buffs". Publication will reach a mixed, sophisticated audience that might require explanation of technical terms. The paper for publication may differ from the one presented at the meeting.

(8) The sessions have been worked out on a very tight time schedule with an average length of 20 minutes for each paper. We will make every effort to give further time up to 30 minutes, if you request this. Speakers will be given a two-minute warning before the allotted time is up; after the time limit is reached, someone will stand until the paper is finished.

(9) Because of the many requests, we are cutting down the number of papers from 44 to approximately 30, so as to leave more time for informal discussions, question periods, etc. Sessions are tentatively scheduled for 9:30 A.M. to 12:00 Noon and 2:00 P.M. to 4:00 P.M.

(10) The use of slides or motion pictures is encouraged and these should be used wherever possible.

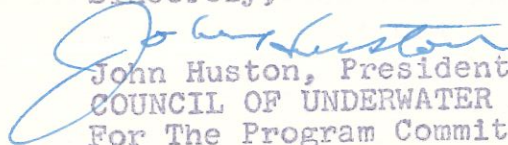
(11) You are requested to submit a copy of your paper with the illustrations to John Huston in San Francisco no later than March 16. If you have only one copy of photographs, the Council will copy them and return the originals to you.

(12) We will confirm the amount of time allotted to each speaker at a later date.

(13) The program of the Conference will be sent to each participant when the details are completed.

(14) You are asked to sign the questionnaire on the third page of this letter when you have completed it. Your signature indicates that the Council has the right to publication of the paper given at the Conference.

Sincerely,


John Huston, President

COUNCIL OF UNDERWATER ARCHAEOLOGY
For The Program Committee

Local Arrangements and Publicity

William R. Gilchrist
University Of Miami
Coral Gables, Florida

Program Chairmen

John Huston and Dr. John Hall
Council Of Underwater Archaeology
419 Presidio Avenue
San Francisco, California 94115

Supporting Institutions

International Oceanographic Foundation
Confédération Mondiale des Activités Subaquatiques
Underwater Society Of America

PLEASE COMPLETE THIS QUESTIONNAIRE, SIGN YOUR NAME AT THE BOTTOM,
AND RETURN AS SOON AS POSSIBLE TO:

John Huston
COUNCIL OF UNDERWATER ARCHAEOLOGY
419 Presidio Avenue
San Francisco, California 94115

1. Title of Paper: *Thermoluminescence Dating of Pottery*
2. Amount of time requested: 20 minutes.
3. Brief outline of contents in order to avoid conflict with papers of other speakers:
Principles and technique of thermoluminescence dating plus a few specific examples.
4. Will you provide us with a copy of your paper and illustrations before the meeting as requested? Yes ; No
5. Special equipment needed: *if I have time*
2x2" projector
6. Slide projector? Yes ✓; No ; Size of slide 2x2"
How many projectors? One ✓; Two
7. Motion picture projector? Yes ; No ; Film size
8. Name: *Elizabeth K. Ralph*
9. Address: *MASCA, University Museum*
10. Institution: *University of Pennsylvania*
11. Position in Institution: *Associate Director Applied Science Center for Archaeology*
Associate in Dept. of Physics
12. Academic background, degrees, etc. (for publicity purposes and program explanation): *use other sub*
Curriculum vitae attached
13. Will you send us a black and white glossy print of yourself? (Publicity helps attendance) Yes ✓; No
14. Has this paper been published previously?
This will be more up-to-date than previous publications

Elizabeth K. Ralph
(Signature Of Speaker)