

December 11, 1963

✓ Miss Dorothy Harbin, Editor
Union Catalogue of the Atlanta-Athens Area
Library Building
Emory University
Atlanta 22, Georgia

Dear Miss Harbin:

The University Museum has subscribed to the Radiocarbon Index since its inception. To date, this laboratory has made infrequent use of the Index, usually in determining the existence of prior radiocarbon dates for a site or an area in which the laboratory is currently interested.

Far more frequent use has been made of this Index by curators and staff of the Museum in checking dates for citation and publication, and in establishing parallel and consecutive cultural sequences. Graduate students in archaeology have found the Index invaluable; my own M.S. thesis and Ph.D. dissertation topics would not have been attempted but for the installation of the Index.

The Index fills a very definite gap here for, until its installation, the only complete file of radiocarbon dates in the area was a massively cumbersome file of date-list reprints in this laboratory. The Index, or something quite similar, is the only way to present such a mass of detailed information--individually sortable by a plentitude of categories.

Sincerely yours,

Robert Stuckenrath, jr.
Research Associate
Radiocarbon Laboratory

UNION CATALOGUE OF THE ATLANTA --ATHENS AREA

LIBRARY BUILDING, EMORY UNIVERSITY

ATLANTA 22, GEORGIA

December 5, 1963

Telephone: DRake 8-2811

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

Dear Miss Ralph:

The University Center in Georgia (of which this Union Catalogue is a service) is a subscriber to the Radiocarbon Index published at Andover, Massachusetts. At present, we are making a study of the usefulness of the Index to the academic institutions in this area. We feel that it would be very helpful to have the opinion of some other subscribers to the Index and I therefore wrote to the publishers of the Index for some suggested names.

Mr. Frederick Johnson, Curator of the Robert S. Peabody Foundation for Archaeology at Phillips Academy gave me your name as a person who might be able to give us an appraisal of the Index.

I shall be most grateful if you or someone else on your staff can let us know your opinion of the Radiocarbon Index as a research tool.

Sincerely yours,

(Miss) Dorothy Harbin

Dorothy Harbin
Editor



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Branch of Theoretical Geophysics
345 Middlefield Road
Menlo Park, California 94025

December 22, 1966

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

Dear Miss Ralph:

Since returning to the United States after the very interesting meetings on thermoluminescence in Spoleto, I and my colleagues have been getting ideas together for thermoluminescence equipment. One of the things we have been particularly concerned with is the method of mounting ~~separations~~ ^{samples} for determining the glow curves. In your talk at Spoleto, you mentioned that your laboratory prepares the powdered samples in a silicone oil on aluminum disc or planchet. I wonder if you would be kind enough to forward me details of the type of silicone oil that you have found successful. We will also be interested in any other details concerning sample preparation that you think would be of benefit to us.

Thank you very much for your trouble, and very best wishes for the New Year.

Sincerely yours,

Richard R. Doell
Geophysicist

Mark - please
fill in gaps &
mark in new
equipment on Fig. 1, p. 3.
Mounted Sample



IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Branch of Theoretical Geophysics
345 Middlefield Road
Menlo Park, California 94025

January 7, 1967

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

Dear Miss Ralph:

My colleagues and I at the Rock Magnetism Laboratory of the U.S. Geological Survey in Menlo Park, California are investigating the possibility of using thermoluminescence as a means of dating young volcanic rocks (up to a few million years old) for use in paleomagnetic studies.

We are interested in establishing a reprint file of thermoluminescence studies, and would be very grateful if you could send us one (or preferably two) copy of any publications you have made on this subject.

Thank you very much.

Sincerely yours,

Richard R. Doell
Geophysicist

IN REPLY REFER TO:



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

14 July 1976

Dr. Elizabeth Ralph
MASCA
University of Pennsylvania
Philadelphia, PA

Dear Dr. Ralph:

I apologize for not having made your acquaintance at the recent radiocarbon conference.

I am writing to request information on bristlecone measurements you may have made since 1969. Have you published some more recently? Are you willing to release any unpublished measurements?

I would appreciate any help you can give me.

Sincerely,

A handwritten signature in red ink that reads "Stephen W. Robinson".

Stephen W. Robinson

STEPHEN W. ROBINSON
U.S. GEOLOGICAL SURVEY
345 MIDDLEFIELD ROAD
MENLO PARK, CA 94025

July 27, 1976

Dr. Stephen W. Robinson
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California 94025

Dear Dr. Robinson:

Additional bristlecone pine measurements are included in our "Dates XVI" (enclosed). During the past two years, we have obtained some more. We included these in the plots which we presented in California but we have not yet made up lists that would be suitable for release.

We hope to do this in the near future, and we should be glad to send you copies.

Henry Michael remembers you very well and sends his regards. I too regret that I did not make your acquaintance.

Sincerely yours,

Elizabeth K. Ralph



THE UNIVERSITY OF ARIZONA

TUCSON, ARIZONA 85721

COLLEGE OF LIBERAL ARTS

DEPARTMENT OF ANTHROPOLOGY

884-2751 info
-1304
602-
November 16, 1966
Ralph
Beets -
How about
this?
Fro

FBR

TWA
air-freight

Dr. Froelich Rainey
The University Museum
University of Pennsylvania
Thirty-third and Spruce Streets
Philadelphia, Pennsylvania 19104

Dear Fro:

Under separate cover I have sent you a complete set of the plans for our Anthropology Building. I hope you will find them useful. We would like to have them back when you are through with them. I enclose a couple of pamphlets with some photographs of the building taken shortly after we moved in. The Wenschow maps we have came from Denoyer-Geppert in Chicago. They have an excellent catalogue you can get.

We would be delighted to take part in some way in the testing of your cesium magnetometer. We have two possibilities to suggest. We have just begun work on a Hohokam site of about Gila Butte-Santa Cruz phase times with a rock-lined ball court and some low mounds showing on the surface. Your hearth-finding mechanism would be great for locating houses on a site like this. The work is being done by Jim Sciscenti who supervised the highway salvage site near San Xavier that your people worked on the last time they were here. We will be on this job into early December, but the time to test the magnetometer is now as far as this one is concerned. It is called the Buttes Dam Site.

In January we will spend several weeks on a highway salvage project at Rye, south of Payson, Arizona. This site is probably about the same time horizon as the Buttes Dam Site, but it represents an entirely different cultural complex. There are some boulder outlines of rooms visible on the surface.

We would be happy to work out something with Dr. Ralph on either of these sites. If she is interested, ask her to write.

Sincerely,

Ray
Raymond H. Thompson

RHT:vg

Encs.

60 miles

Soi Hest
Mr. Thompson
312-869-5500

Lee - busy Mon & Tues
611 Hanson Way
415/326/4000 ext 3205
Shelly ext 2104

*Rainey
for file*

UNIVERSITY OF CALIFORNIA
DEPARTMENT OF MINERAL TECHNOLOGY
BERKELEY 4, CALIFORNIA

*Ralph
NASC*

PETROLEUM ENGINEERING
GEOLOGICAL ENGINEERING

MINING
METALLURGY

CERAMIC ENGINEERING
PROCESS ENGINEERING

*let me know
what you
think?
Fro*

November 28, 1965

Dr. Froelich Rainey
The University Museum
The University of Pennsylvania
33rd & Spruce Streets
Philadelphia, Pennsylvania 19104

Dear Dr. Rainey:

We are enclosing a copy of a Statement of Intent submitted to Varian Associates to carry out geophysical investigations at an archaeological site of your choice. We have had a preliminary discussion with Lee Langan about this project, and it may be possible for Varian to sponsor our investigation on this preliminary study. This temporary arrangement will not affect the availability of one or both of us to continue work in archaeological geophysics in the fall.

Should it happen that the management of Varian is unable to finance our part of this project, would it be possible for your laboratory to cover our part of the expense?

We will be in touch with you after our next discussion with Varian.

Yours sincerely,

H. F. Morrison

H. F. MORRISON

D. P. O'Brien

D. P. O'BRIEN

Enclosure

STATEMENT OF INTENT

We the undersigned, following a conversation on November 23, 1965, with Messrs. Langan, Morris and Sarles of Varian Associates, propose to carry out a geophysical investigation during the summer of 1966, of an archaeological site chosen by Dr. F. Rainey of the University of Pennsylvania.

The primary geophysical instrument for this survey will be the new lightweight Varian Cesium magnetometer. Additional geophysical equipment will be loaned by the University of California, Berkely, on a fee basis.

We understand that this study will be of approximately 90 days duration, of which five to seven weeks will be spent in the field. Further commitments will be discussed upon completion of the project.

We would carry out this study as employees of, or consultants to, Varian Associates. Our compensation, travel arrangements, field logistics, and final report will be discussed at a future meeting.

H. F. Morrison

H. F. MORRISON

D. P. O'Brien

D. P.O'BRIEN

UNIV. of GEORGIA, UNIV. OF

Froelich Rainey

July 12, 1963

Dear Mr. Kelly:

I was very glad to have your letter of June 26th telling us of your interest in the new techniques in archaeology, and that you are employing Ashworth from Britain. We would be very pleased to keep in touch with you and to loan you equipment available here, since we are anxious to do all the testing possible to develop these instruments.

At the moment I am sure we could send to you one of the German resistivity instruments and possibly the proton magnetometer when it returns from Italy late this summer. Also, if some of your people get up this way do look in on the Techniques Center to see what we are trying to do. Let us know if we can be of assistance.

Most sincerely,

Froelich Rainey
Director

FR/eh

Mr. A. R. Kelly
Chatsworth Hotel
Chatsworth, Georgia

June 29, 1963

Dear Mr. Kelly:

Dr. Rainey is at present out of the country;
I will bring your letter to his attention
upon his return in mid-July.

Sincerely,

David Crownover

Mr. A. R. Kelly
Chatsworth Hotel
Chatsworth, Georgia

THE UNIVERSITY OF GEORGIA
FRANKLIN COLLEGE OF ARTS AND SCIENCES
ATHENS, GEORGIA

Field address:
Chatsworth Hotel
Chatsworth, Georgia

June 26, 1963

DEPARTMENT OF SOCIOLOGY
AND ANTHROPOLOGY

Dr. Froelich Rainey
Director, Applied Science Center for Archeology
University Museum
University of Pennsylvania
Philadelphia, Pennsylvania

Dear Dr. Rainey:

I am very much interested in the new center established at the University of Pennsylvania Museum, coordinating techniques and experiments applicable to archeological field methods.

The University of Georgia field party will operate this summer and fall at the Carter's Quarters site, Murray County, Georgia, where a large federal dam project will result in the destruction of probably the most extensive and deeply stratified prehistoric site in Georgia north of the Etowah Mounds, i.e., a total range from archaic to historic Cherokee. There is both vertical and "horizontal" stratigraphy. The materials are telescoped in some places into several feet of deposits sealed in alluvial sands over a geological clay base. The conditions are excellent for the utilization of several of the new techniques for a tentative location of features and structures in depth.

We are also employing a young British archeologist, Michael J. Ashworth, who has had considerable experience in Great Britain with the proton magnetometer and other equipment with which the British have had considerable success. I believe that Dr. Johnson at Indiana University has been testing some of these methods under the conditions of his sites in the Middle West.

Mr. Ashworth has training in both archeology and geology, and prior to his acceptance of an appointment with the University of Georgia field party, was working with geological problems at the University of Iowa; methods of soil study analysis, chemical and biological problems figured heavily in the Iowa studies.

In short, I think it likely that we would want to maintain contact with your newly established center for such studies. We may well seek to obtain certain equipment and your advice regarding same in this connection. Mr. Ashworth will join the Georgia field party in late July and we would be able to communicate further details in regard to projected plans here after his arrival.

Sincerely,

A. R. Kelly
A. R. Kelly

ARK; jth

November 4th, 1974

Dr. Nicholas David
Department of Archaeology
Faculty of Science
University of Ibadan
Nigeria

Dear Nic,

Information about two proton magnetometers is enclosed, but the prices may be out-of-date. Both instruments are reliable, usually foolproof, and easy to use.

Either I or Bruce Bevan would like to visit you site and to see you, but we would need travel funds.

With best regards,

Elizabeth K. Ralph

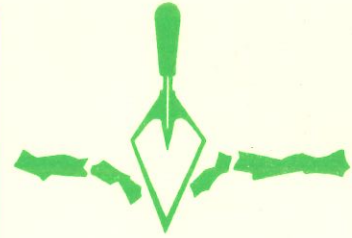
Newsletters sent Nov. 5/74

UNIVERSITY OF IBADAN · NIGERIA

FACULTY OF SCIENCE

DEPARTMENT OF ARCHAEOLOGY

TELEPHONE: IBADAN 62550 EXT. 567/8, CABLES & TELEGRAMS: 'UNIVERSITY IBADAN'



Professor and Head of Department

~~THURSTAN SHAW~~ CBE, MA, PHD, FSA, Nicholas David, B.A., Ph.D.

Telephone: 62550 Ext. 1094

YOUR REF.

OUR REF. Arch.4/25 DATE 12 October, 1974.

Dr. E. Ralph,
Director,
Museum Applied Science Centre for Archaeology,
University Museum,
University of Pennsylvania,
33rd & Spruce Street,
Philadelphia,
Pa. 19104,
U. S. A.

Dear Beth,

I am writing to ask for your advice and help on two matters.

This Department is hoping to begin a long term and large scale programme of excavation at the abandoned city of Old Oyo in the northern most part of Nigeria's Western State. It is a vast site, and covered in thick bush, and very difficult to survey or prospect. Clearly, we could waste a great deal of time before finding some structure or work of art that would capture the public's interest. We can deal with the problem of survey, and I think that a protomagnetoneter would help us a very great deal in prospecting for sub-surface features. I know that you have had a lot to do with developing these machines and that they have been greatly improved in recent years. Would you please let me know the make and model which you consider most suitable for prolonged use in tropical conditions, and where there are no repair facilities whatsoever? Would you also kindly let me know the name and address of the supplier? Our budget for this item is approximately \$2,500 which includes the cost of transport and spare parts.

It may be that all this information is given in back numbers of the M.A.S.C.A. Newsletter, which, sadly, this Department does not possess. Could you please let me know the cost of subscription ^{and} of back numbers to date?

*It would be nice if we could include you at the
Be Dregors to Berben a Mark.*

*Yours ever
N.D.*



EARTH SCIENCES OBSERVATORY
OFFICE OF THE DIRECTOR
830 South Van Vleet Oval,
Room 107

THE UNIVERSITY OF OKLAHOMA

NORMAN, OKLAHOMA 73069

March 31, 1971

Dr. Elizabeth K. Ralph
Applied Science Center for Archaeology
The University Museum - University of Pennsylvania
33rd & Spruce Streets
Philadelphia 4, Pennsylvania

Dear Dr. Ralph:

It was my pleasure to receive your recent letter containing information pertinent to our research program in archeomagnetism. The site at Lake Peten Itza sounds like one that we would be most interested in and from which we would be most anxious to obtain samples. The fact that they expect to find kilns, hearths and fired floors is most encouraging as these are types of things most useful to us. I will follow your suggestions and write to Douglas Hancock concerning the possibility of obtaining samples of baked clay from the site.

We have been very fortunate to be able to obtain quite an extensive suite of specimens from Kaminaljuyu at Guatemala City and hope that we will be able to obtain additional materials from this site also in the near future. We are somewhat concerned, however, about the political situation that exists down in Guatemala at this time, and I was wondering if you had any special information concerning this problem and if your field party is definitely planning to operate during the field season of this coming summer.

Thanking you for your recent letter and with my best regards.

Sincerely yours,

A handwritten signature in blue ink that reads "Bob".

Robert L. DuBois
Director

RLDB:km

U of P. - LIBRARY

March 29, 1960

Mrs. Alice F. Cullis
Acquisitions Department
Main Library

Dear Mrs. Cullis:

I should like to obtain a copy of the following report:

Waters, G.S. and Francis, P.D., 1955, Signals and Research Development
Establishment, Report No. 1097. (England).

The subject is the development of the proton magnetometer and adaptation for
use in archaeological prospecting.

Could you obtain this for me or tell me to whom I should write?

Sincerely yours,

Elizabeth K. Ralph

Elizabeth K. Ralph
C-14 Laboratory
Physics Dept.
Physical Sciences Building

Ext. 8168

C
O
P
Y

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

Office of Planning and Design

3451 WALNUT STREET
(215) 594-5831

ARTHUR R. FREEDMAN, *Director*
TITUS D. HEWRYK, *Asst. Director*

August 1, 1970

Dear Colleague:

In re: Institutional Studies

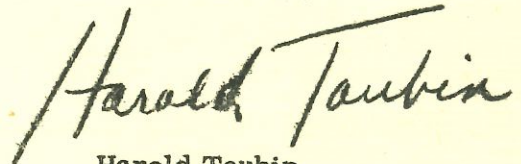
The Office of Institutional Studies is interested in locating, identifying and, if available, receiving report copies of any institutional studies which your staff or organization completed during 1969-70 and 1970-71, or upon which it is currently engaged. A brief note stating the study title, description, staff participants including the principal investigator or author (s), will be appreciated.

Institutional studies are, for this purpose, defined as studies or research relating to the policies, goals, purposes, organization, function, operation, programs, history, practices, activities, students, faculty, staff, internal and external clientel (including hospital patients), etc., of this University, any of its organizational or activity components; or, more generally, institutions of higher learning.

Where a report copy can only be provided on a temporary loan basis, a catalog card and precis will be prepared for our files and the copy will be promptly returned.

If you are interested in receiving a report on the response to this survey when it is completed, please let me know and we will be happy to send it along.

Yours sincerely,



Harold Taubin
Senior Analyst

UNIVERSITY INTRAMURAL CORRESPONDENCE

[U M I V O F P E N N]

1/29/73.

Dear Beth,

Thank you ever so much for unearthing the details of the dimensional stone used in the Museum. I find this v. interesting and helpful. It makes a great difference if students can see such beautiful examples of polished stone and know exactly what they're looking at.

Many thanks again

v. sincerely yours

Tan

University of Toronto

TORONTO, CANADA M5S 1A1

DEPARTMENT OF ANTHROPOLOGY

WNI

March 17, 1976

Dear Colleague:

At the request of Tom Myers I am continuing as area sub-editor for Current Research in the Far North. The column for 1975 is to appear in the October 1976 issue of American Antiquity.¹ This is a call for submissions.

Please include as much of interest as is possible, within editorial limits amounting to about 3 pages per episode/project/amazing discovery. My own inclination is to report only non-routine laboratory work and impending publication-information that is likely to influence the immediate plans of others.

As in the past, please report C-14 dates thus:

e.g., 7675 \pm 260 radiocarbon years: 5725 B.C. (SI-1998).

Please get your copy to me before the SAA meeting in May.

With Best regards

Bill

WNI:cs

W. N. Irving
Professor of Anthropology

1. 1974 news, which was to appear in October 1975, was late; I think it will appear in April 1976.

University of the Witwatersrand, Johannesburg



1 Jan Smuts Avenue, Johannesburg, 2001, South Africa
Telephone 724-1311, Telegrams 'University', Telex 43/7330 SA

telephone ext

your reference

our reference

date 8th NOVEMBER 1974.

Dr. Elizabeth K. Ralph,
The University Museum,
University of Pennsylvania,
33rd & Spruce Streets,
PHILADELPHIA.
Pennsylvania 19174.
U.S.A.

Dear Dr. Ralph,

Dr. Hugh Bergh very kindly put me in touch with you. My Department is working on the earliest mining and metal production in South Africa. At the moment I am excavating a site called Broederstroom 24/73, which is the largest and earliest preserved village south of the Sahara, with a number of C.14 dates between A.D.400 and A.D.500. 24/73 has at least two major iron smelting areas with slag debris covering about one-quarter of an acre. We also have a large number of other iron and copper smelting sites. I attach a number of recent papers for you to see.

I would be very glad to send you slag samples if you would care to investigate the application of your thermoluminescent dating to the slag. Of course we also have a complete series of pottery assemblages dating from circa A.D.200 in the Transvaal.

From our point of view the dating of scattered pottery assemblages from surface sites would be the most useful scientific application of thermoluminescent dating for developing a dated settlement sequence in the Transvaal. The same can be said for surface slag scatters. Any assistance you are able to suggest would be most gratefully received.

The purpose of our programme is to develop a public education system to inform South Africans of all races about the origins of the mining industry and farming industry which is the basis of the present economy.

With best regards,

Yours sincerely,

A handwritten signature in blue ink, which appears to read "R.J. Mason".

R.J.MASON.

HEAD: DEPARTMENT OF ARCHAEOLOGY.

November 21, 1974

Dr. R.J. Mason
Head, Department of Archaeology
University of Witwatersrand
1 Jan Smuts Avenue
Johannesburg, 2001
South Africa

Dear Dr. Mason:

Hugh Bergh wrote to me just as you did, and I have written to him to explain why we are not yet ready to date metal slags with any certainty.

We have had more experience with pottery and we find that about 80% of the samples give reliable thermoluminescent (TL) dates. We prefer to date sherds from stratified sites, but we are not completely opposed to dating assemblages from surface sites.

Since we have just learned that our latest grant request has been turned down, we now have to charge for this service. The cost is \$250.00 per sample with a reduction to \$200.00 each for a series of ten or more.

Thank you for the reprints which I have enjoyed reading. I have enclosed one from Scientific American and a sheet with the items of information that are required.

Sincerely yours,

Elizabeth K. Ralph

PAN-AMERICAN COFFEE BUREAU
120 WALL STREET
NEW YORK, N. Y. 10005

CABLE ADDRESS
"PANACAFE"

AN INSTRUMENTALITY OF THE GOVERNMENTS OF BRAZIL, COLOMBIA,
COSTA RICA, CUBA, DOMINICAN REPUBLIC, ECUADOR, EL SALVADOR,
GUATEMALA, HAITI, HONDURAS, MEXICO, NICARAGUA, PANAMA, PERU
AND VENEZUELA

TELEPHONE
WHITEHALL 4-5912

August 7, 1968

Office of the Director
University Museum
Spruce Street
Philadelphia, Pa.

Attention: Dr. F. Rainey

Dear Dr. Rainey:

Dr. Junius Bird of the Museum of Natural History here in New York very kindly referred me to you as a possible source of information concerning a device called Rabidium Magnetomer, described in the New York Times of November 22, 1964 as being useful in locating ruins, etc.

I have a special interest in securing this or similar equipment for use in my native country, Ecuador, where there are many unexplored areas which may yield objects dating from the time of the Incas.

I shall very much appreciate any information you can give me concerning the Rabidium Magnetomer or similar devices. I would particularly want to know something about their efficiency and the names of manufacturers I might contact for details about price, etc.

Many thanks for any help you may be in a position to give me.

Sincerely yours,



Marcos Uscocovich B.

August 13, 1968

Mr. Marcos Uscocovich
Pan American Coffee Bureau
120 Wall Street
New York, New York 10005

Dear Mr. Uscocovich:

Dr. Rainey has asked me to reply to your letter of August 7th in regard to archaeological prospecting with magnetometers.

I have enclosed copies of a few articles about Rubidium and Cesium Magnetometers. As you will see, the new ones have been developed for us by Varian Associates in Palo Alto, California. I have included literature about the most recent one which Varian has developed - the V-4971 - which sells for \$5,750. The best person to contact at Varian is Dr. Sheldon Breiner, Analytical Instruments Division.

Sincerely yours,

Elizabeth K. Ralph