

He doesn't
write well; no
bkg. in Physics

Gary Carneau
ASCA

March 16, 1973
Fayetteville, AR 72701

There is no
job position
but you may wish
to feel in touch on what
he is doing?
Jro

Dr. Froelich Rainey
Director
MASCA
University of Pennsylvania Museum
University of Pennsylvania
Philadelphia, PA 19100

Dear Dr. Rainey:

I am writing to inquire as to the possibilities of joining your staff at MASCA. My director, Dr. Charles R. McGimsey III, feels your facility offers the best opportunity to do archeological research with regard to the application of physical research to archeological techniques. While here with the Arkansas Archeological Survey both as a graduate student and as a research assistant I have conducted basic research on a new physical dating technique for the dating of fired clay artifacts, such as pottery and firehearths. I had hoped to have a reprint of the article we have submitted for publication but as yet it is still in the press, thus I cannot supply you with one as yet.

I know Dr. McGimsey has looked for you or members of your staff to discuss this matter with you so if you would be interested please feel free to contact him as he would welcome the opportunity to discuss this with you, since he has not made connections at any of the national meetings.

I have enclosed a vita listing my background and training. It is brief, but I hope it conveys the particular specialization I have chosen in archeological research concerning the application of the more technical disciplines to archeology.

As I say, I would consider it a great favor if you would take the time to contact my director concerning this matter as I feel he could best detail my qualifications and the ramifications of the research that I have conducted at these laboratories. I will sincerely appreciate your consideration in this matter.

Sincerely,

Ervan G. Garrison

Ervan G. Garrison

Ervan Garrison

503 Forest Avenue
Fayetteville, Arkansas 72701

Telephone 521-3477

Personal Married 6'1" 185 Pounds 29 Years Old

**Professional
Objective**

Research scientist. Particular objective in applied research and teaching anthropological science.

Education

B.S., 1970 University of Arkansas. Major in Zoology.
M.A., 1972 University of Arkansas. Major in Anthropology. Special emphasis on applied physical dating techniques, archeology. 18 hours in physics and nuclear chemistry.

Experience

1969
to
1970

Zoological graduate research in cytology. Field training in natural history, ecology of North American vertebrates, taxonomic classification of vertebrate fauna.

Experience

1970
to
1972

Research assistant for Arkansas Archeological Survey(AAS). Work in applied physical dating techniques, and activation analysis, fission track dating, alpha-recoil track dating. Have worked with radioisotopes, geiger-mueller counters, scintillation counters, GeLi detectors, IBM computer(360), most types of optical microscopes and photomicrographic systems.

Aug. 1971
to
May, 1972

Teaching assistantship for Dept. of Anthropology, Univ. of Ark. Assisting in instruction of Introductory Cultural Anthropology.

Aug. 1971
to
May, 1972

Graduate student representative to faculty of Dept. of Anthropology, Univ. of Ark. Served as committee member Graduate Program revision.

Jan. 1971
to
May, 1972

Guest lecturer to Dr. Michael Hoffman's course in North American Prehistory. Topics: Physical dating techniques, application of physics and other technical disciplines to archeology.

**Field
Experience**

Arkansas Post National Memorial, Historic site archeology, survey, mapping, and excavation. 1971

Ridge House, Fayetteville, Arkansas, Historic site archeology, record search, excavation, laboratory processing of materials. 1971

Prehistoric site survey, Arkansas river valley. (independent of AAS) Results filed with AAS. 1971

Underwater survey of inundated sites, Beaver Reservoir, Arkansas, independent of AAS. 1971-1972

Underwater survey of three wrecked vessels, John Pennekamp Underwater State Park, Key Largo, Florida. 1971

Grants Co-investigator, grant from Research Corporation, \$3000.00

Papers
and
Publications

New Dating Technique, Paper presented to Arkansas Archeological Society, Petit Jean, Arkansas, June, 1971.

Fission Track Dating of Pottery, Paper presented to Mid-South Archeology Conference, Jonesboro, Arkansas, August, 1971.

The Application of Alpha-Recoil Track Dating to Archeological Ceramics; Potential and Problems, M.A. Thesis presented to Department of Anthropology, 1972.
Alpha Tracks for Archeological Dating and Geochemical Microanalysis of Thorium/Uranium Ratios (Submitted to Science for publication 1973).

Summer
Work

Earned 100% of total college expenses with Arkansas Archeological Survey (AAS).

Military
Service

1963 to 1965. Special Forces Paratrooper, rank of E4. Spent most of time in continental United States. Duty as a Para-Medic. Present Draft Status: 4s.

Background

Brought up in Oklahoma and Arkansas. Member of Ozark Society, (conservation group). Member of social fraternity. Wife is elementary teacher. No children. Have traveled extensively in eastern U.S.

Miscellaneous
skills

Trained diver, certified scuba, "hard-hat" experience, "hooka", etc. Marine and freshwater salvage. Underwater photographic experience. Survey and mapping.

Outside
Interests

Scuba diving, fishing, and hiking.

References

Dr. Micheal Hoffman, Chairman, Department of Anthropology University of Arkansas, Fayetteville, Arkansas 72701

Dr. Chas. R. McGimsey III., Director, Arkansas Archeological Survey, University of Arkansas Museum, Fayetteville, Arkansas 72701

Dr. James Beck, Nuclear Chemistry Department, University of Arkansas Chemistry Department, Fayetteville, Ark. 72701

January 25, 1974

Mr. William Kohler
Attorney and Counsellor at Law
336 Boulevard Building
1819 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103

Garvin

Dear Mr. Kohler,

I have learned from Professor Anthony N. B. ✓ Garvin of our American Civilization Department that a donor has offered to present to him \$10,000 with the understanding that he will be able to find matching funds. The \$20,000 is to be used towards the purchase of equipment such as the x-ray fluorescent scanning equipment. Professor Garvin is confident that he will be able to raise this matching money. He now asks whether the balance--approximately \$38,000--can be obtained from the Haas Community Fund and the total be used to purchase the equipment mentioned above.

The equipment will be under my control but will be located in the Museum and will be used extensively for conservation purposes. We also intend to use the equipment to determine quantitative chemical analysis of metal objects. As stated above, I now need a commitment to the extent of about \$38,000 so that this equipment can be obtained. I would appreciate your help in acquiring this equipment.

Sincerely,

Robert Maddin

→ cc: Dr. F. G. Rainey



THE READER'S DIGEST

PLEASANTVILLE • NEW YORK

Rome address below
March 21, 1969

*Mark
Here
Can you answer
questions
attached
JG*

Dear Fro,

More bother for you. I hope the enclosed blue sheet explains itself. I'll bet your TL lab will be a little scornful of my suggestions, but I would like to be absolutely but absolutely sure. Seems to me that at least theoretically, the trickery I propose might just work.

My earlier article, entitled THE ARCHEOLOGICAL KIDNAPERS, has been accepted. In it I make only one reference to your Museum, but I thought it best to let you know what it is. I'm dealing with the vast supply of unwanted things in Mediterranean museums, especially the things called "duplicates." I explain that since all ancient things were handmade, no two are exactly alike, but often enough so that the term "duplicate" applies. Then I write:

"Private museums handle this problem of "duplicates" with common sense. Thus the University of Pennsylvania Museum keeps a special show-window full of objects it has studied and needs no longer, or unwanted duplicates, which the public can buy at reasonable prices. This clears valuable storage space and also provides a welcome cash income for more museum work."

That's it. And let me say this is in my original version. It may well be cut out of the condensed version, which I haven't yet received.

(And high time I put in a new typewriter ribbon.)

I'm having a world of fun with this piece on Fakes and Forgeries.

I'm off to Malta tomorrow and should be back in Rome, God willing, on March 27.

All best best,

Gordon

from Gordon Gaskill
Reader's Digest
15 Via Scarpellini
Rome, Italy

March 21, 1969

SOME QUESTIONS RE THERMO-LUMINESCENCE DATING

I'm about halfway through an article on Archeological Fakes and Forgeries, and in it I want to explain your TL tests. One connection will be your testing of the Artemis head of the St. Louis Museum, and what happened. I am today writing that Museum (Dr. Buckley) for whatever account he can supply of developments in the past year.

I might use as a good example of the whole process the case history written by Ellen L. Kohler (page 16ff) in EXPEDITION, Vol 9, No. 2, Winter 1967. I would explain how this "Etruscan" figure passed petrographic and similar lab tests: how "stylistic judgments" varied, but raised doubts. And how finally TL testing settled it once and for all, as a fake. I may add that "more and more museums and collectors, when a really big sale is involved, make it contingent on a favorable verdict by Penn's TL lab." And perhaps how Penn has tried--so far in vain--to get dealers to chip in enough to buy equipment, after which you'd run tests for a rather nominal sum.

I find most archeologists and art historians (a) are rather dubious of TL testing and (b) don't know one damned thing about it. When I explain it (me!), they seem impressed. But the vital questions are: is it absolutely infallible? could it be fooled by really clever fakers? If TL is to become the infallible judge on which sales of \$20,000 or \$50,000 or even much more may turn, it must be right all the time. It won't be good enough to have it "mostly right" or "nearly always right" or "right 99% of the time."

I'm wondering if your equipment could be tricked? What suggested this possibility to me was the following line from page 18 of the Kohler article, second full paragraph from the second column: "And if the mineral is not redosed by artificial radiation..."

Could it be, by a very clever team of skilled people working in a very well equipped laboratory? How about posing this problem: let's take a very skillfully made but modern "Attic vase". Forget all stylistic, petrographic and other lab tests. Let's concentrate on nothing but TL. Could you yourself, in your own lab, so treat this modern vase--that is--"redose it by artificial radiation"--so that it would later test out as, say, two thousand or more years old? Could you so dose a vase and trick Oxford?

I am sure it would take a very very good lab and very very good scientists to do thus--but could it be done? Perhaps (I know absolutely nothing of the method that might be used) a split second of over-exposure might make it test out to something ridiculous like one million years. Is that possible? Or could it be over-dosed, and then have the radiation "drained off gradually," perhaps by gradual heat, until it reached the right amount to say two thousand years or so? Probably childish questions, but I'd be very glad if they were considered with some gravity. My theory is that if this could be done, eventually it will be done. The rewards are enormous, and enough to seduce very serious people. Really excellent modern imitation vases are now made in Italy, which have fooled really expert people. If a man could, say, buy one for a hundred dollars or so, then pay say \$5000 to have it doctored up with artificial radiation, and if this fooled your TL tests, and the vase then brought him \$30,000 or so....not so bad.

By the way, does TL testing apply only to pottery and terra-cotta, or does it also apply to some few other things? Glass, maybe? *What else?*

For Dr. Rainey: when I write up the section concerning Penn in this article, I'll send it to you to check before publication.



UNIVERSITY OF MISSOURI-COLUMBIA

College of Arts and Science

Department of Anthropology

210 Switzler Hall
Columbia, Missouri 65201
Telephone (314) 882-4731

December 17, 1974

Dr. Elizabeth K. Ralph
Museum Applied Science Center for Archaeology
University Museum
University of Pennsylvania
Philadelphia, PA. 19174

Dear Dr. Ralph:

Thank you for returning my call so promptly. I enclose some material which I have sent to the other Evolutionists whom I have asked to participate. This will give you an idea of how I visualize the symposium.

I have a book on dating prepared by the Creationists which I can send you. This will give you an idea of how their arguments run. It is particularly important for the participants to know the Creationist's point of view ahead of time. They have been pretty successful with their debates in the past mainly, I believe, because the Evolutionist was unprepared.

I am trying to get funds for the symposium. Such funds would cover transportation, registration, etc. I enclose a form which the AAA requires before the symposium can be placed on the program. I hope you will fill it out and return it to me along with a title acceptable to you.

Thanks.

Sincerely,

A handwritten signature in cursive script that reads "James A. Gavan".

James A. Gavan, Ph.D.
Professor

JAG/gam

Enclosures



Beth Ralph

THE READER'S DIGEST

PLEASANTVILLE • NEW YORK

April 8, 1969

Dear Fro,

I hate to burden you with a lot of correspondence, but I must make some reply to your March 21 letter. One line in it really stunned me: "**You have already suggested to dealers** that they finance a separate thermoluminescence station here..." My God! I was absolutely certain that you had suggested it! I know my head was spinning during my Philadelphia visit, but could I really have dreamed up, all by myself, this plan for dealers? How would I dare? I'd have sworn that you told me about it, and I have certainly been relaying the news in this manner--as a suggestion from you, rejected by all dealers. Please tell me if I'm out of my mind, so I can correct things--in conversation as well in my eventual article.

Thermo-luminescence: I await with some dread the promised "more involved and scientific statement" from Mark Han, as to whether he could fake a modern terra cotta to read "old." I won't understand one word of it, alas, but will try hard, hard, hard. I still go back to that line I quoted from Ellen Kohler's article: "But what is most important to us is the fact that if this glow is once driven off by heating **and if the mineral is not ~~was~~ redosed by artificial radiation,** the glow will not be replaced except by a slow process of natural redosage." To me that dramatically red-type clause seems to mean it could be done. I realize Ellen Kohler is not in that lab, but she seems in this article to be quoting information from Beth Ralph. I still pose the original question: "Could Mark Han redose a modern terra-cotta and fool Oxford's TL lab into pronouncing it ancient, using TL tests alone, and nothing else?" *WHY NOT TRY IT?*

Re Castro: I finally got out to that site. Helluva trip. Road very very very rough, then climbing over fences, tramping through wheat fields, and would never have found site (overgrown by forest) without aid of adenoidal 15-year-old farmboy guide. He says he's seen a jeep up near the site, but surely nothing else could get there on wheels. Interesting stuff strewn around. Boy says some archeologist been working a bit on site, but certainly nothing recent. Could not make much out of what boy said. I have held back from asking questions about this at Villa Giulia (Moretti & Co.) but will do so if you wish. Or perhaps your files will show what's been done there if anything; boy says a French archeologist has been working nearby, couple of miles away, nothing to do with Castro. I wish he'd do something about those adenoids. Would be fun to go with you there this summer but, alas, I'll be in the U.S. nearly all the summer, with my son, who really ought to see a little more of his native land. Summer means July and ~~August~~ August in this case. If you're in Rome before or after that, fine.

Briefly, more or less, for once.

Gordon

STAFF WRITER: GORDON GASKILL • 15 VIA SCARPELLINI • ROME, ITALY

April 15, 1969

Mr. Gordon Gaskill
15 Via Scarpellini
Rome, Italy

Dear Mr. Gaskill:

I have just returned from Mexico and find several of your letters to Fro on my desk. The main question in your mind seems to be whether or not the fakers can make pottery "old" by artificial irradiation. My answer is no unless they have the patience to wait for many years.

After artificial irradiation, the glow curves have different shapes, mostly with more glow in the low temperature regions. We know that these different shapes remain for 6 months, but how they would look after 10 years, we don't yet know.

We have encountered a few sherds that have been atypical for one reason or another, so that I wouldn't say that thermoluminescence is right 100% of the time, but if one sampled 5 to 10 contemporaneous objects and got good agreement, I would trust the results without doubt.

Our thermoluminescence work so far has been mostly with pottery. It does work on glass if the glass happens to contain a sufficient amount of uranium, but we haven't experimented with enough samples to have worked out a calibrated time-scale.

We did write to a number of dealers to ask if they were willing to finance a second apparatus so that we could handle all of their requests for authentication, but we did not receive one reply from them.

Sincerely yours,

Elizabeth K. Ralph

EKR/mrb



THE READER'S DIGEST

PLEASANTVILLE • NEW YORK

May 5, 1969

Dear Elizabeth Ralph,

It was very nice of you indeed to take the time to write me your helpful April 15 note about whether you could or could not fool the thermoluminescence test. I never really will understand about "glow curves" and the like. I've tried to make a short, simple description of your tests in the article I've just submitted about Fakes. If this part is left in (they always cut out about a half), either I or our New York research people may be in touch with you to see if I've got it right, in my very layman's over-simplified way.

Odd--or maybe not so odd--that no dealer has taken you up on the idea of clubbing together for that second apparatus. One big man in Basel, Switzerland, seemed interested, especially since he had lost so much himself in buying a couple of "Etruscan" pieces that proved fake. As he said, a single test by you would have saved him much more than he lost by being misled by a very genuine-looking fake.

Again thanks for your trouble. We met years ago in Sybaris and I hope we may meet again somewhere.

Gordon Gaskill

STAFF WRITER GORDON GASKILL • 15 VIA SCARPELLINI • ROME, ITALY

for Jeannette

ASCA

Jeannette

April 14, 1965

Dear Miss Gedye:

I think you have heard from Beth Ralph, Associate Director of our Applied Science Center for Archaeology (ASCA) that Jeannette Flamm, Assistant in that Department, wants to join you at the Institute next year, and I just want to add my comment that she has been doing a bang-up job with us, I find her very attractive and intelligent ~~a~~ person, and I highly recommend her to you.

Also, I remember some foundation either in England or the United States which supports American students studying museum and field techniques. I was supposed to look this up for Jeannette, because we had one other student on that arrangement in England, but I have been unable to find any data on it. If by chance you have any idea of what this foundation is, I would appreciate your advice.

Very best wishes,

Froelich Rainey
Director

Miss Ione Gedye
Institute of Archaeology
31-34 Gordon Square
London, W. C. 1
England

FGR/vg

UNIVERSITY OF LONDON : INSTITUTE OF ARCHAEOLOGY

31-34, GORDON SQUARE, LONDON, W.C.1

IG/HF

27th April 1965.

file
Techm pms

The Director,
The University Museum,
University of Pennsylvania,
Thirty-third and Spruce Streets,
PHILADELPHIA, PA. 19104.

Dear Mr. Rainey,

Thank you for your letter of April 14th. We are indeed expecting Miss Flamm in autumn 1966 and hope she will enjoy her time with us.

As far as grants are concerned, I have spoken to our Registrar but he has no knowledge of the organisation you have in mind. It is, of course, necessary for students to make arrangements for their own grants and I regret we can be of no help in this connection.

Yours sincerely,

Ione Gedye

(IONE GEDYE) Miss.

UNIVERSITY OF LONDON
INSTITUTE OF ARCHAEOLOGY
31-34 GORDON SQUARE
LONDON, W.C.1

I've informed Jeanette
VZ

← To open cut here →

Sender's name and address:
UNIVERSITY OF LONDON
.....
INSTITUTE OF ARCHAEOLOGY
.....
31-34, GORDON SQUARE,
.....
LONDON, W.C.1
.....

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OR SENT BY ORDINARY MAIL.

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A John Dickinson Product



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.....
The Director,
.....
The University Museum,
.....
University of Pennsylvania,
.....
33rd and Spruce Streets,
.....
PHILADELPHIA, PA., 19104
.....

March 9, 1972

Miss Alma Louise Geibelt
309 Valley Road
Haworth, New Jersey 07641

Dear Miss Geibelt:

In regard to your wishing to find a position here, I am writing to say that I am sorry that we do not have any openings at the present time. This situation may change in September if you would like to get in touch with us toward the end of August.

Since your training and interests are more closely related to conservation than our activities - C14 and thermoluminescence dating, use of magnetometers, etc., you might like to inquire at the Conservation Center of Art, Institute of Fine Arts of New York University, 1 East 78th St., New York City.

Sincerely yours,

Elizabeth K. Ralph

EKR/mm

309 Valley Road
Haworth, New Jersey 07641

March 3, 1972

Applied Science Center for Archaeology
University Museum
33rd and Spruce Streets
Philadelphia, Penna. 19104

Dear Sir:

I should like to engage your help in finding a position in the field of archaeological research and historical preservation which would require a productive, dependable and creative individual. While I was in graduate school at the University of Kansas, I worked on Hopewell Indian sites in both the field and in the laboratory. Through my father who is a professional sculptor and the Art Center of Northern New Jersey of which I am a member, I learned the techniques of sculpture and oil painting. By designing and sewing my own clothes and working for a textile company, I am familiar with textiles.

I am aware of the importance of preserving historical sites and remains from the expansion of modern technology and would like to help make that goal a reality.

Yours truly,



(Miss) Alma Louise Geibelt

Resume of:
ALMA LOUISE GEIBELT

309 Valley Rd., Haworth, N.J. 07641
PHONE: (201) 384-9926

EDUCATION

1961-1965

MARY WASHINGTON COLLEGE OF THE UNIVERSITY OF VIRGINIA, Fredericksburg,
Virginia

Degree:

B.A. in Modern Foreign Languages. Major: Spanish

Member:

Lived in Spanish House - 1 1/2 years

Active member of Spanish Club

1963-1964

UNIVERSITY OF MADRID, Madrid, Spain

NEW YORK UNIVERSITY'S JUNIOR YEAR ABROAD PROGRAM - classes
conducted entirely in Spanish by noted Spanish professors

1965-1967

GRADUATE SCHOOL OF THE UNIVERSITY OF KANSAS, Lawrence, Kansas
graduate studies in anthropology

1967-1969

EVENING DIVISION OF FAIRLEIGH DICKENSON UNIVERSITY, Teaneck,
New Jersey

post graduate studies in chemistry

Courses completed include the following:

<u>Course</u>	<u>Hrs.</u>	<u>Course</u>	<u>Hrs.</u>
Sp. conversation	4	Amer. Indian studies	9
Sp. grammar	12	Latin Amer. archeology	6
Sp. literature	16	Cultural anthropology	12
Sp. history	6	Physical anthropology	6
Latin American economics	6	Oceanic studies	12
Latin American civilization	6		

EMPLOYMENT

1969-present

J.P. STEVENS RESEARCH AND DEVELOPMENT LABORATORIES (textiles)
Garfield, New Jersey
analytical laboratory technician

ALMA LOUISE GEIBELT

PERSONAL

Born: 4/17/43 in New Jersey. Height 5'2"; Weight 110

Marital Status: Single

Residence: Live with parents; free to relocate

Hobbies: Skiing; swimming; designing and sewing own clothing; traveling (Spain, France, Portugal, Germany, Denmark, Holland, Algeria, Ethiopia, Kenya, Tanzania, Rhodesia, South Africa, Uganda, Cuba, Puerto Rico, Panama, Virgin Islands, Senegal, Mali, Ivory Coast, Ghana, Chad, Cameroon, Gabon, Morocco)



GENERAL ATOMIC

DIVISION OF GENERAL DYNAMICS CORPORATION

P. O. BOX 608, SAN DIEGO, CALIFORNIA 92112

August 24, 1966

Dr. Elizabeth E. Ralph
Assistant Director of the Applied Center
for Archaeology
University of Pennsylvania Museum
Philadelphia, Pennsylvania

Dear Beth:

I dropped in at your house of wonders in the catacombs of the Physics Building yesterday only to have one of your eager beavers tell me that you were in Italy until October. I will try to look you up again some time this Fall.

Sincerely yours,

P. H. Miller, Jr.

PHM:jmm

DIVISION OF:



September 30, 1966

Dr. P. H. Miller, Jr.
General Atomic
P. O. Box 608
San Diego, Calif. 92112

Dear Dr. Miller:

I regret very much that I wasn't here when you visited our old house of slow counting, and hope that you will come again soon.

Among other things in Italy, I attended the NATO-sponsored conference on Thermoluminescence. There were some surprising announcements, including a suggestion by Dr. Labeyrie (Saclay) of using TL for C-14 dating. Since we are already in the TL business for dating pottery (getting good age correspondence at last), we are thinking of trying some experiments.

With best regards,

Beth Ralph

EKR/bs

Resistivity
Steenland

November 25, 1959

Mr. Nelson C. Steenland
Geophysical Associates International ✓
3621 West Alabama
P.O. Box 22007
Houston 27, Texas

Dear Mr. Steenland:

I hope you will remember our discussion at lunch in Houston after I gave a lecture on archaeology there. We talked about geophysical exploration in archaeology and I wrote you in April saying that we were trying to set up an archaeological institute, which among other things would go to work on these geophysical techniques.

The plan I submitted to the National Science Foundation bounced back, I think because I asked for too much money. However, we have been asked to prepare another and more modest program, which I am now doing.

First, could you tell me where I can find an electronics manufacturer, producing a Magnetometer and also resistivity equipment, useful for our purposes in archaeology. We have one resistivity instrument which was made up for us in Oxford, but I understand better equipment is now made in the United States. I've also written Cambridge for a Magnetometer, but I wonder if this isn't also produced in the United States. As you know, we will be working less than a hundred feet in depth and generally no more than twenty. Also the smaller and lighter the machine the better. I'm anxious to try out both of these instruments in Mexico this winter and would like to purchase them from the maker as soon as possible.

Second, I should like to state in our next application to the National Science Foundation that we wish to work with an organization like yours in developing and perfecting such equipment for archaeological research. Naturally, what we might develop with you is quite different from what is used in industry, oil prospecting and so forth and would not be commercially saleable in the same sense. Have you any idea of how we

•enbrun

Steenland

April 2, 1959

Mr. Nelson C. Steenland
Geophysical Associates International
3621 West Alabama
P.O. Box 22007
Houston 27, Texas

Dear Mr. Steenland:

Many thanks for your letter of the 21st and for the offer to assist in experimenting with geophysical exploration in archaeology. Perhaps I told you that we have just asked for a grant from the National Science Foundation to set up an institute for research in the techniques of archaeology. If we get that we will be set up here to do some serious work in the geophysical field and I will most certainly get in touch with you because I have an idea that what we are doing now is pretty primitive.

That was a very interesting and pleasant lunch we had in Houston and I do hope to run into you again.

Incidentally, one of the girls in the museum here snatched all those paper napkins you sent on, to be used at her wedding reception. I think you will appreciate that this is something of a come-on.

Regards,

Froelich Rainey

FR:ah



Geophysical Associates International

Phone MO 7-3344

Cable: Geonal

3621 West Alabama
P. O. Box 22007
Houston 27, Texas

MARCH 21, 1959

DR. FROELICH RAINEY
UNIVERSITY MUSEUM
UNIVERSITY OF PENNSYLVANIA
33RD AND SPRUCE STREETS
PHILADELPHIA, PENNSYLVANIA

DEAR DR. RAINEY:

IT WAS A PLEASURE TO HAVE LUNCH WITH YOU.

IF WE CAN BE OF ANY ASSISTANCE IN THE AP-
PLICATION OF GEOPHYSICAL EXPLORATION TO ARCHAEO-
LOGY PLEASE DO NOT HESITATE TO CONTACT US.

CORDIALLY YOURS,


NELSON S. STEENLAND

NCS:ES

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

Department of Geology

January 22, 1968

Dr. Froelich Rainey
University Museum

Dear Fro:

Robert Giegengack, the man so highly recommended by Dick Flint, has accepted a position as Assistant Professor in our department, beginning academic year 1968-69.

Giegengack is a Pleistocene geologist, and is presently working on some pre-hominid fossils with a Yale University expedition to India. I know that he will be available to you for consultations and cooperative research.

Cordially,


Henry Faul

mf

cc: Dr. Kidder
Dr. Wallace

May 25, 1972

Dr. Robert Giegengack
Mucuchies, Edo. Merida
Venezuela

Dear Bob:

Many thanks for your helpful letter. I have just written to George Ulrich and Bob Stutton and shall hope for the best. I am already in touch with Ned Danson, Director of the Museum, and he sounds very cooperative.

We read about your escapade in the Almanac (enclosed), and we hope that things are calmer now.

Excuse the haste.

Best regards to you and Fran,

Elizabeth K. Ralph

EKR

P.S. Jeannette Flamm is helping Darrel Butterbaugh to send out letters for MASCA Newsletter requests, and we are hoping that Fran will have some time to help with the Newsletter, perhaps in September.



**Geophysical
Survey
Systems, Inc.**

217 Middlesex Turnpike, Burlington, Ma 01803, Telephone (617) 272-5225

October 15, 1976

Dear Friend:

GEOPHYSICAL SURVEY SYSTEMS, INC. (GSSI) will introduce its new generation Electromagnetic Subsurface Profiling System at the 46th Annual International Meeting of the Society of Exploration Geophysicists.

The new Subsurface Interface Radar (SIR) System will be on display in Booth 611 at the Albert Thomas Convention Center, Houston, Texas, October 25th to the 28th.

The SIR System allows its user to obtain continuous subsurface profiles of geological and man-made interfaces in a rapid nondestructive manner. The acquired data is easily interpreted and may be enhanced by computer processing.

SIR Systems have been significantly improved in performance, ease of operation, and reliability over its predecessor Model 3000 and the price is lower.

GSSI Subsurface Interface Radar equipment has been used for a wide variety of applications for more than 5 years all over the world. A wealth of information and experience has been accumulated that can be shared with you.

Rex Morey and I will attend the meeting and hope you will stop by our booth to see the new SIR System and learn how it may help solve a problem for you. If you can't attend, call or write for more information.

We hope to meet you in Booth 611.

Very truly yours,

GEOPHYSICAL SURVEY SYSTEMS, INC.

Joseph V. Rosetta, Jr.
Director of Marketing

COME TO THE
46TH ANNUAL
INTERNATIONAL MEETING

SOCIETY OF
EXPLORATION
GEOPHYSICISTS

HOUSTON, TEXAS
OCTOBER 25 - 28, 1976



GEOPHYSICAL SURVEY SYSTEMS, INC.
BOOTH 611
ALBERT THOMAS CONVENTION CENTER



**Geophysical
Survey
Systems, Inc.**

217 Middlesex Turnpike
Burlington, Massachusetts 01803

Elizabeth Ralph
The University Museum
33rd & Spruce Streets
Philadelphia, PA 19174



FIRST CLASS MAIL

Also Torre del Mordillo

airmail
ASCA
1/6/66

Sig. Giacinto Loisi
Via Amendola 12
Cassano Ionio
(Cosenza) Italy

Caro Giacinto,

Many thanks for your good letter
& card, & ^{the cigarette.} All goes well here except that
there is too much to do.

Could I ask you to do a favor?

We have been studying the drill samples
& we find ~~an~~ mortar in each one.

The problem is whether it is man-
made or natural. Therefore, we should
like to compare it with some
mortar from Test Pit D. Could you
possibly ~~found~~ find a few small pieces,
preferably ones attached to pieces of brick
that are definitely of the Roman period?

Test Pit D is in Parco del Cavallo, a
small scavo just west of the big
(It has not been closed so that there should be shards, etc. in the pits around it.)
scavo of la Soprintendenza. If you
could send us a few pieces (no bigger
than those from the drill samples), it
would be a great help.

Please extend my thanks to Nuncio for
his card. I am now planning to return sometime
in March.

(over) →

With best regards,
Beth

Another favor, if you happen to go to Cosenza, could you ask if it is possible for me to buy a Fiat 850 ^{without delay} when I arrive, or do I need some special permission since I am not a resident?

P.S. Could you please also find a piece of mortar from the "East Wall" sopra Torre del Mordillo? This is the bit of wall where we worked first on the plateau in 1963 & where the documentary film was made.

1/15/66

Caro Gigante

La ringrazio per la sua gentile lettera e cartolina e in modo particolare per le sigarette.

Tutto procede bene da noi con la possibile eccezione che c'è troppo lavoro.

Vorrei chiederle di farmi una cortesia. Studando i saggi della perforazione li abbiamo rilevati coperti di calcina e adesso si tratterebbe di determinare se questa sia naturale o artificiale. Vorremmo poterla paragonare con la calcina rilevata nelle perforazioni prova "D".

Patrebbe lei quindi provvedere alcuni campioni, preferibilmente quelli attaccati a pezzi di mattoni dell'epoca romana? Il luogo delle perforazioni prova - D è al Pomo del Carcelo, presso il piccolo scavo direttamente a ovest dello scavo grande della Soprintendenza. Gli scavi non sono stati chiusi, quindi vi si dovrebbero trovare cocci nei dintorni.

Se lei fosse in grado di inviarmi alcuni campioni, di misura non maggiore a quelli ottenuti nelle perforazioni prova, le saremmo molto grati.

Voglia ringraziarne, la prego, Nuovo per la sua cartolina. Ritorno ritornare verso la metà di marzo.

Beth

Beth

In secondo luogo, se le capitasse di andare a
Cosenza, vorrebbe informarsi per favore se mi
sarebbe possibile di acquistare una Fiat 850 appena
arrivato senza dover aspettare, oppure se mi
occorra un permesso speciale dato che sono
forestiera?

Per concludere, piacerebbe anche inviarmi
un campione di calina prelevata dal Muro Est
sopra la tona del Mordillo? Sarebbe la
parte del muro dove incominciarono a lavorare
sul plateau nel 1903 e dove fu fatto il
documentario

La prego di voler ringraziare Nunio per
la sua cortesia - Tenendo riferimento verso
la metà di Marzo

Cordiali saluti,

176

UNIVERSITY INTRAMURAL CORRESPONDENCE
MUSEUM

February 4, 1971

Dear Dr. Rainey:

Thank you for the Christian Science Monitor article and the memo regarding Karl Turekian's work with amino acid dating of bone. We wrote Dr. Turekian for the last newsletter and he had no data to publish at that time. However, he has promised us something for the May '71 issue and it certainly does sound like an interesting, "relevant" item for our newsletter.

Francesca Siegenack

September 28, 1962

Dr. Louis Giddings
Department of Anthropology
Brown University
Providence, Rhode Island

Dear Louis:

While I was in Tucson late in June of this year I spoke with Bryant Bannister about various things and particularly about the master log which he established for the Anatolian plateau. You probably know the details of it by now.

During our conversation, Bannister pointed out that there is one cross-section of a log which apparently is not one of the series which we had sent him early in 1961. He *or someone else* suspected that it might be one that either you sent him earlier (1957, 1958?). At any rate, he would like to have a record of it so he can properly describe it in his forthcoming article on the Gordion series.

If you know anything about this please let Bannister or myself know at your earliest convenience so that his publication does not get held up too long.

I had just seen your review of Rudenko in Ethnohistory and think it is a fine evaluation of the work.

With best personal regards, I am

Cordially,

HENRY N. MICHAEL

HNM/jaw

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

Department of Geology

Dear Beth,

Will you please write a letter to the following:

James F. Mundy
Raynes, McCarty, and Binder
1845 Walnut Street
Philadelphia, Pa., 19103

On MASCA or Univ. Museum stationery stating that:

Francesca Giegengack missed 2 weeks of work as a result of the injury sustained in an automobile accident that occurred on March 30, 1970.

Indicate what the title of her job was, and her salary at that time. The point is not that she lost work, especially since you unaccountably continued to pay her while she was languishing in the hospital, but that the injury was severe enough to keep her away from her job. Sooner or later we'll settle this whole thing, but not until every lawyer in several counties gets what he can out of it!!

Thanks,

BOB

*P.S. YOU CAN EITHER MAIL IT DIRECT OR
SEND IT TO ME*

October 16th, 1973

James F. Mundy
Raynes, McCarty, and Binder
1845 Walnut Street
Philadelphia, Pa. 19103

Dear Sir,

This letter is being written to confirm the fact that France~~ca~~ Giegengack missed two weeks of work as a result of the injury sustained in an automobile accident that occurred on March 30, 1970.

She was employed in our MASCA laboratories as the Research Bibliographer. Her salary was \$5500 per year.

Since the injury necessitated that she be in the hospital, it was not possible for her to conduct her work for two weeks.

Sincerely yours,

Elizabeth K. Ralph

NATIONAL MUSEUM OF VICTORIA

285-321 RUSSELL ST.,
MELBOURNE, VICTORIA 3000,
AUSTRALIA.

EDG/NW. 383-1970.

11th February, 1970.

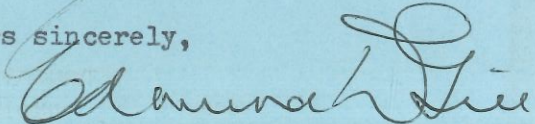
Mrs. Stuart Lawn,
Radiocarbon Laboratory,
Department of Physics,
University of Pennsylvania,
Philadelphia 4,
U. S. A.

Dear Mrs. Lawn,

Many thanks indeed for the
information in your letter of January 27th which
is very helpful.

I am very sorry indeed to hear
of Miss Ralph's illness, and I shall be obliged if
you will convey to her my best wishes.

Yours sincerely,



Edmund D. Gill,
Deputy Director.

AEROGRAMME

BY AIR MAIL · PAR AVION

MELBOURNE
11 FEB
11 30PM
1970
VIC 3000



Mrs. Stuart Lawn,
Radiocarbon Laboratory,
Department of Physics,
University of Pennsylvania,
Philadelphia 4,
U. S. A.

COUNTRY OF DESTINATION

SENDER'S NAME AND ADDRESS
NATIONAL MUSEUM OF VICTORIA,

285-321 RUSSELL ST.,
MELBOURNE,

VICTORIA POSTCODE 3000,
AUSTRALIA.

ST FOLD

IF ANYTHING IS ENCLOSED OR ANY TAPE OR STICKER ATTACHED, THIS FORM MUST BEAR POSTAGE AT THE RATE FOR AIRMAIL LETTERS.

MELBOURNE
11 FEB 1970
VIC 3000

NATIONAL MUSEUM OF VICTORIA

285-321 RUSSELL ST.,
MELBOURNE, VICTORIA 3000,
AUSTRALIA.

EDG/NW. 112-1970.

14th January, 1970.

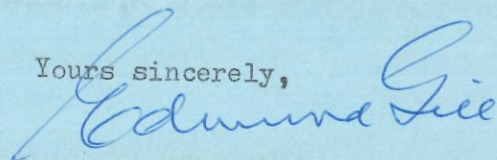
Dr. Elizabeth K. Ralph,
Radiocarbon Laboratory,
University of Pennsylvania,
Philadelphia,
Pennsylvania,
U. S. A.

Dear Dr. Ralph,

I was delighted today to receive a set of University of Pennsylvania radiocarbon dates. Thank you for these but unfortunately there were two copies of No. 3 and none of Number 4. Under separate cover by surface mail I am returning the extra copy of No. 3 and will be very much obliged if you will let me have a copy of No. 4. We have been conducting a project on the River Murray in an area which it is proposed to flood with a large dam. Aboriginal middens up to 18,200 years have been found, and much of interest with respect to changing climates and fauna. A sand system on the east side of Lake Victoria has two formations, the lower one of which is characterised by extinct giant marsupials. The upper part of this can be dated by material from aboriginal middens, but it is very desirable to date the lower part and the only way I can think of doing this (seeing bones are the only material available) is by radiocarbon dating on the apatite of the bones. Can you please tell me if there is a laboratory using this method where I could have a dating done? In 1965 I visited the Archaeological Museum at your University, and found it a fascinating place. Twice since then I have visited U.S.A. but have not had the time to call again.

With best wishes for your research,

Yours sincerely,



Edmund D. Gill,
Deputy Director.

AEROGRAMME

BY AIR MAIL · PAR AVION

MELBOURNE
14 JAN
6 - PM
1970
VIC. AUST.



Dr. Elizabeth K. Ralph,
Radiocarbon Laboratory,
University of Pennsylvania,
Philadelphia,
Pennsylvania,
U. S. A.

COUNTRY OF DESTINATION

SENDER'S NAME AND ADDRESS
NATIONAL MUSEUM OF VICTORIA,

285-321 RUSSELL ST.,
MELBOURNE,

VICTORIA POSTCODE 3000,
AUSTRALIA.

IF ANYTHING IS ENCLOSED OR ANY TAPE OR STICKER ATTACHED, THIS
FORM MUST BEAR POSTAGE AT THE RATE FOR AIRMAIL LETTERS.

FIRST FOLD

January 27, 1970

Dr. Edmund D. Gill
National Museum of Victoria
285-321 Russell Street
Melbourne, Victoria 3000,
Australia

Dear Dr. Gill:

As Miss Ralph is recuperating from recent surgery, I will attempt to answer your letter of January 14th as best I can.

First, please accept our apologies for sending two copies of Date List III and none of IV. I have included a copy of IV along with the other material I am sending to you.

In answer to your questions concerning the dating of the apatite fraction of bones, I have taken the enclosed material about this procedure from our reference files as we do not routinely do this type of dating.

The 1969 progress report on this procedure doesn't sound too promising; however, you might contact the researchers actively engaged in this procedure to see if they could accommodate your samples at this time. Or, alternatively, you might contact Isotopes, a commercial laboratory that does very reliable work. Their address is:

Dr. James Buckley
Isotopes
Westwood Laboratories
50 Van Buren Avenue
Westwood, New Jersey 07675

I hope that this will be of some help to you.

Sincerely yours,

Mrs. Stuart Lawn
Radiocarbon Laboratory

Enclosure

Copy: Radiocarbon: Analysis of Inorganic Carbon of
Fossil bone remains
copy - C.V. Haxnes - Progress report

Mr. André Giraud
c/o Mr. Niquille
1224 Chêne-Bougeries
Suisse

le 17 août 1972

Mr. le Directeur de
University Museum
Philadelphia -U.S.A.-

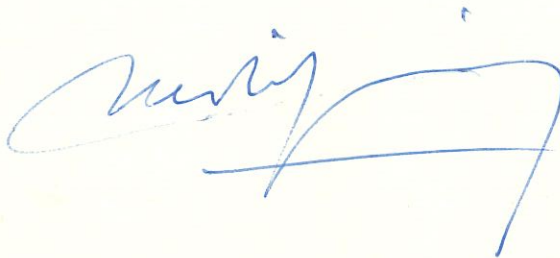
Monsieur le Directeur,

J'ai eu l'occasion de lire, il y a quelques années, différents articles sur les travaux préliminaires aux fouilles sur l'emplacement présumé de Sybaris.

L'emploi que vous aviez fait à cette occasion d'un magnétomètre à Caesium avait particulièrement retenu mon attention.

Aussi, sur le point de faire différentes recherches sur d'importantes Villas romaines j'aimerais avoir des renseignements sur cet appareil, en connaître le constructeur et savoir dans quelle condition je pourrai m'en rendre acquereur.

Veillez, avec mes remerciements, agréer, Monsieur le Directeur, mes respectueux sentiments.

A handwritten signature in blue ink, appearing to be 'Giraud', written in a cursive style.

August 23, 1972

Mr. André Giraud
c/o Mr. Niquille
1224 Chêne-Bougeries
Switzerland

Dear Mr. Giraud:

Unfortunately, Varian Associates no longer manufactures the precision portable cesium magnetometer which we used in the search for Sybaris. This is described in the enclosed reprint from Geoexploration. However, they do sell a smaller one, the V-4971. The description of this is enclosed.

GeoMetrics manufactures a greatly improved proton magnetometer (see enclosed leaflet). For the detection of Roman structures, the proton magnetometer would probably have adequate sensitivity. There is also the Elsec proton magnetometer which is heavier. I think that it costs about 2000, but I am not sure of this figure.

Most of these magnetometers can be rented by the month. I hope that this information will be of some help to you.

Sincerely yours,

Elizabeth K. Ralph

EKR/ek
Enclosures

Charles R. Girling
12 Rockland St.
Taunton, Mass. 02780
15 February 1966

University of Pennsylvania
Philadelphia, Pa.
Department of Archaeology

Gentlemen:

A "rubidium magnetometer", according to news in the BOSTON HERALD, attributed to your spokesman, 22 Nov 1964, detected magnetic abnormalities pinpointing ancient excavations 20 feet beneath soil of a Mediterranean coastal land, or outlines of old communities, of great archaeological interest. The site of a famous lost city of antiquity, perhaps Sybaris, might have been located.

One may suppose that the above instrument may have been perfected further since then.

In view of the problems facing our troops in Viet Nam, enemy burials of weapons nearly everywhere, Viet Cong murderers (of women and children) hiding in caves and tunnels by day, and coming out at night to hit and run after terrorizing the peasants to make them support Communists against any government other than by Ho Chi Minh and his superior Mao Tse Tung. The U.S., those two claim, is their principal target.

So long as Ho's henchmen keep shooting and bombing our people and the residents of South Viet Nam (formerly called Annam as a distinction from Tonkin to the north?) our side must shoot and bomb Ho's people vigorously. Let the demonstrators and remonstrators and defeatists and fellowtravelers and "Vietniks" present themselves and their verbal and sign protests to North Viet Nam and the Viet Cong. Who'd bet those squawkers would survive the attempt?

Meanwhile U.S. troops may be suffering more than would be the case if the underground works and buried weapons and dug-in ambushers could be located by the use of such an instrument as the "rubidium magnetometer".

Without posing a question perhaps not to be answered in the interest of security, let me suggest that if not already done, the University of Pennsylvania make available to the U.S. armed forces this "rubidium magnetometer" for development and early use in reconnaissance, detection of buried objects and fox-holes and snipers, tunnels and other underground works, camouflaged bunkers, mines and booby-traps, even men hidden by shallow burials and breathing thru tubes (a few men only remaining on their feet to complete the work and remove signs of it and camouflage the result), perhaps even to detect enemy troops and heavy weapons in spite of thick jungle cover, or quickly determine the direction from which in-coming fire is being directed, particularly mortar fire.

Yours for an early end to agony in Viet Nam,

Charles R. Girling, MIT '29

February 18, 1966

Mr. Charles R. Girling
12 Rockland Street
Taunton, Mass. 02780

Dear Mr. Girling:

As suggested in your letter, improvements have been made by Varian Associates in the rubidium magnetometer, and two prototypes of a completely portable instrument have been constructed.

Your suggestion of possible military applications has also been anticipated, and experiments to this effect are being conducted. I am sorry that for security reasons, I do not know the details.

I have enclosed a copy of our MASCA Newsletter.

Sincerely yours,

Elizabeth K. Ralph

EKR:mhr
enc. (1)

UNIVERSITY OF CAMBRIDGE

Botany School,
Downing Street,
Cambridge.

December 1961

I understand from the Editors of "Radiocarbon" that the guaranteed circulation of this journal is only half what is requisite to make it into a financial success for the publishers, the American Journal of Science, and that unless there is an increase by some 500 in the list of subscribers, we may soon be faced with a cessation of publication. This would be such a catastrophe for those manifold fields of enquiry that have come to depend upon radiocarbon dating that we should, whilst there is still time, take every step to avoid the possibility.

I would ask you, therefore, if you would be kind enough to determine whether there is in your University or Institution a general or a departmental library which, whilst not already subscribing to "Radiocarbon", might, with suitable pressure, be brought to do so. You will know that the journal is published annually in June at Stirling Tower, Yale University, New Haven, Connecticut, under the Editorship of Professor R.F. Flint and Professor E.S. Deevey. The subscription rate is now 7 dollars per volume.

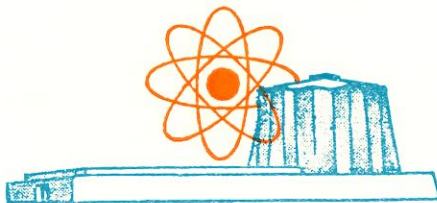
You will recall that at the International Conferences upon radiocarbon dating it has been agreed that definitive publication of dates should be regularly made by as many laboratories in the world as possible in this one journal and in a standard form. In fact this objective has been to a large extent realized and it is already apparent that the publication is of the greatest possible scientific importance and that this importance will increase.

I hope that you do not consider this recommendation too presumptuous: I am in no financial way involved with responsibility for the publication of "Radiocarbon".

H. Godwin

H. GODWIN
Professor of Botany.

ISRAEL ATOMIC ENERGY COMMISSION
SOREQ NUCLEAR RESEARCH CENTER



הוועדה לאנרגיה אטומית
המרכז למחקר גרעיני נחל-שורק

Department of Inorganic Chemistry

May 25, 1977.

Dr. E. R. Ralph
Museum Applied Science Center
for Archaeology
The University Museum
University of Pennsylvania
33rd & Spruce Streets
Philadelphia, Penn. 19104
U.S.A.

Dear Dr. Ralph,

Thank you for your letter of October 16, 1976, concerning my interest in participating in research problems at your laboratories. I am indeed sorry that you do not have funds to support a visit and that you will be unable to accommodate me for one year. I guess that your lack of financial support is a reflection of the general economic climate in research where funds are sparse.

Not having found a suitable position in Archaeological Chemistry, I shall be spending the next academic year, 1977/78, doing research in electronic materials at a laboratory in the United States. I hope that during the course of the year I shall be able to take up your offer to visit your facilities and discuss with you and your colleagues subjects of common interest.

Thank you very much for your interest.

Yours sincerely,

Zvi Goffer

ZG/es

2820 Marion Avenue
Bronx 58, New York, N.Y.
November 24, 1959

Miss Elizabeth K. Ralph
Department of Physics
The College
University of Pennsylvania
Philadelphia 4, Pa.

Dear Miss Ralph:

Thank you for your letter of October 20 which I received at the Institute of Archaeology in London. I was sorry to hear that the request for a grant was not approved.

I expect to remain in New York City for a while and I shall appreciate it if you will keep me informed of future developments regarding archaeological conservation work at the University Museum.

Sincerely yours,



Bernard Golden

bg/

January 28, 1965

Dr. Sidney Goldstein, Chairman
Department of Sociology and Anthropology
Brown University
Bristol, Rhode Island

Dear Dr. Goldstein:

Thank you for your kind letter regarding the plans for the continuation of the work of Louis Giddings.

In regard to the radiocarbon dating, we plan to devote our laboratory time to the Arctic beginning in May or June of this year. We now have a number of samples collected by Dr. Giddings: some forty from the Onion Portage site, and perhaps half a dozen from the Cape Krusenstern beaches. With this large number, plus others from the Arctic, we do not expect to complete these series before mid-Autumn.

If there is any urgency about any of these samples, we should be glad to send one or more series to Dr. Libby for dating at the UCLA laboratory. From past experience, however, we find that it is usually a mistake to divide a series among laboratories-- it adds to the confusion and results in dates for the same site appearing in diverse publications, etc.

Thank you again for your thoughtfulness in writing us and others about your plans.

Sincerely yours,

Elizabeth K. Ralph
Radiocarbon Laboratory

EKR:rs

July 22, 1964

Dr. Robert Goldwater
Museum of Primitive Art
15 West 54th Street
New York 19, New York

Dear Dr. Goldwater:

In regard to the dating of wooden sculptured figures from the Mali Republic by C-14, I have enclosed a sample information sheet.

I find that our list of sample size requirements is obsolete, but I think that the only information that you need is that we require a minimum of 15 grams of wood for dating in our large counters.

Sincerely yours,

Elizabeth K. Ralph

EKR:pc

April 29, 1961

Professor H. Godwin
Sub-Department of Quaternary Research
Botany School, Downing Street
Cambridge, England

Dear Professor Godwin:

Thank you very much for the copies of your report and Croonian lecture. Needless to say, I have enjoyed reading them.

Our C-14 laboratory has been "out-of-business" for several months because of tritium contamination from nearby physicists who were using He³. Our rooms are now being sealed, air isolated, counters replaced, etc. It is particularly frustrating at this time in view of the half-life question. We had hoped to have completed sufficient measurements of known age samples, especially, in the 1000 to 3000 B.P. range to be able to ascertain an "effective" half-life for these periods. The indications from the measurements completed are that a value of 5800 is a reasonable fit except for some of the recent eras as shown by your data and that of others. This 5800 value is in close agreement with the new NBS determination (5760⁷⁰₋₃₀ years), and we have used it for age calculations for series of dates from Mediterranean regions. This had made the classical archaeologists happy, for with the new values, C-14 dates agree well with previous archaeological estimates. When it is published, however, I suspect that the radiocarbon people will be unhappy even though we have also included the dates as calculated with the Libby half-life.

With other half-life determinations in process, it may be considered premature to make a change, but since it will be several years before accurate "effective" values will be determined (by known age measurements) for each era, we felt it imperative to be more realistic about the half-life for this Mediterranean series.

At the get-together of C-14 people in New York in January, I felt that the archaeological point of view was somewhat overlooked, which is quite natural since most of those attending are more concerned with geology, geophysics, etc. It was an informative session and I enjoyed seeing Dr. Willis again.

With best regards,

Elizabeth K. Ralph

EKR:ma

UNIVERSITY OF CAMBRIDGE : DEPARTMENT OF BOTANY

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

BOTANY SCHOOL
DOWNING STREET
CAMBRIDGE
TELEPHONE 58304

3 May 1961

Miss E.K. Ralph,
The University Museum,
Thirty-third and Spruce Streets,
Philadelphia 4,
Pennsylvania,
U.S.A.

Dear Miss Ralph,

Thank you very much for your interesting letter. It must have been very frustrating to have your laboratory put out of action by the tritium contamination and I hope that before long you will get into your stride again.

I think Eric, to whom I showed your letter, will be writing to you telling you what he knows about the redetermination of half-life being made by Ingrid Olsen in Uppsala and at Aldermaston. I am sure that your approach is going to be extremely valuable and Eric tells me that your conclusions seem to fit in very well with the new determinations. I notice in the news this week that fresh material has been uncovered at Pompeii and I wondered whether you had ever secured material of bread or walnuts or corn from that site, where one might suppose that the date AD.79 would be very closely attested by the material.

Eric will no doubt tell you that in the process of fitting up a second gas counter he has himself run into a lot of electronic trouble. It seems that our British firms are very bad in producing the long geigers needed for the anti-coincidence array and so he is spending a great deal of time in checking faults and refilling tubes and so forth.

Perhaps Eric will let you know that we are thinking of calling together the next Radiocarbon Conference in Cambridge during 1962 and if we can bring this off we should very much hope to see you here again.

Yours sincerely,

Henry Godwin

BY AIR MAIL
PAR AVION
AIR LETTER
AEROGRAMME

BRIDGE
30PM
MAY
1961



HAVE YOU
TAKEN OUT
YOUR LICENCE
FOR RADIO-TV?

First fold here

Miss E.K. Ralph,
The University Museum,
Thirty-third and Spruce Street,
Philadelphia 4,
Pennsylvania,
U.S.A.

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/IV

To open, cut here

THE UNIVERSITY OF CHICAGO
CHICAGO 37 • ILLINOIS
DEPARTMENT OF GEOLOGY

March 9, 1961

Miss Elizabeth K. Ralph
Radiocarbon Laboratory
University of Pennsylvania
Philadelphia 4, Pennsylvania

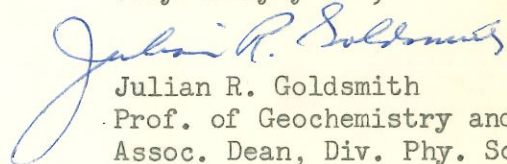
Dear Miss Ralph:

On a recent trip to Mexico City I visited Mr. Franz Feuchtwanger, who is an authority on ancient Mexican cultures. He showed me a small container, perhaps 2 inches high and $\frac{1}{2}$ inch in diameter, containing carbonaceous material. It comes from the Tlatilco site, one of the most interesting archaic localities in Mexico. I would guess the original material was food, packed into the small vessel as an offering during burial.

I am not sure whether or not enough carbon is present for a good C-14 determination; but I have written Mr. Feuchtwanger to ask him for an estimate of the amount of carbon. Assuming that there is enough, would it be at all possible to have a dating analysis made at your laboratories?

I would appreciate hearing from you as to whether or not you might be interested in this sample. I should perhaps state that my interest is purely that of an ardent amateur in the field of Mexican archaeology.

Very truly yours,


Julian R. Goldsmith
Prof. of Geochemistry and
Assoc. Dean, Div. Phy. Sciences

JRG:okm

March 27, 1961

Professor Julian R. Goldsmith
Department of Geology
The University of Chicago
Chicago 37, Illinois

Dear Prof. Goldsmith:

Thank you for your letter of March 9, 1961 about the sample from the Tlatilco site. It does sound interesting, but I am sorry to report that we have more samples to date than we have time to process. Our laboratory time is taken up almost entirely with samples submitted by members of the University Museum. Also, for reliable dating, we feel that it is important to date series of samples rather than isolated finds.

I have enclosed an information sheet of Isotopes, Inc., a commercial laboratory which does very good work, which will, at least, be a guide in the matter of sample sizes.

Sincerely yours,

EKR/lm
Enc.

Elizabeth K. Ralph

C
O
P
Y

RICHARD GORDON

Techniques ?

~~Gordon~~ ?

July 29, 1964

Dear Dick:

Sorry for the delay in replying to yours of the 25th, regarding the foundations of the Valley Forge burned by the British in 1777.

The Chemist, here, has been on vacation, but he is now back and I will get you a report of the analysis of the charred planking and a recommendation as to how to treat the wood, there.

After thinking this over, I still see no other way to preserve wooden remains in situ, except by lifting them and then constructing a brick or cement floor under what was the original floor of the Forge, and then resetting the wood into position. It will always be wet down there and the wood is bound to rot if left on an earth base.

I would also recommend the reconstruction of the foundation walls with cement to hold the stones in place.

Dr. Bernard Wailes is still in England but when he returns in September I will talk with him about the possibility of carrying out a dig at one of the hut sites, where he can use his graduate student in archaeology to do a very detailed excavation of one of these huts. I should think

this would fit in his plans and I will let you know in September.

Most sincerely yours,

Froelich Rainey
Director

Mr. Wm. Richard Gordon
2 Finance Building
Campus

UNIVERSITY INTRAMURAL CORRESPONDENCE

25 June 1964

Dr. Froelich Rainey
Director
University Museum

Dear Fro:

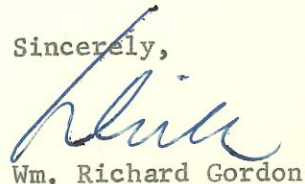
I reported orally to the Valley Forge Park Commission yesterday that:

1. You had most kindly met with me at 8:30 a.m. to examine the charred remnants and foundations of the Valley Forge burned by the British in September 1777;
2. You and I had removed a small section of charred planking for your analysis and recommended chemical treatment;
3. You ab initio suggest that we further excavate; that we raise the wooden remnants placing them on cradles where they can be treated and where they will remain out of the mud and water except for occasional flooding; that we think of pouring a cement floor within the remaining walls and raceways; and that the stones of foundation walls be properly arranged and perhaps mortared in position;
4. You might happily prepare a brief memorandum embodying your recommendations after additional thought has been given the matter.

The Commission was delighted to receive this news and awaits your further guidance.

I also advised the members that the University Museum might be pleased to conduct a "dig" at one or several hut sites, observing the most scientific techniques, delivering any recovered artifacts to the State, and preparing a technical report on the findings. The Commission here again heartily endorses this idea and asks that you submit a formal request for permission to accomplish the same.

Sincerely,



Wm. Richard Gordon

WRG/ph

Dr. Ramsey

He
11/2

Preservation of Wooden Remains of Forge, Valley Forge State Park, Penna.

Substances which have been used to preserve wet wood include polyethylene glycols (Union Carbide Corp.), polyvinyl emulsions, thermosetting resins, and Arigal C (Ciba, Basle). For proper treatment, however, all require the complete immersion of the object in the solution, some require the application of heat, and most remain water-soluble and so would be leached out if the object continues to be exposed to rain or other water. I have not been able to find any reference to a substance which could be applied effectively to a very large object in situ.

Under the circumstances the best treatment may be to coat the object repeatedly with creosote, which is water repellent and a good fungicide. This, of course, would have to be done when the wood was dry.

The sample I have seen appears to be in fairly good condition, in that it had not shrunk nor cracked on drying.

A.E. Parkinson

8/8/64

A.E.P.

November 1, 1966

Rechniques

Dear Professor Gordus:

Both Miss Ralph and I would be very pleased to talk with you about the application of neutron activation analysis in archaeology. We have done nothing with this technique and would like to know more about it. Also we would be pleased to show you *around* our Applied Science Center for Archaeology whenever you are in Philadelphia, and to *show* you what we are trying to do here.

Let us know a little in advance when you will be *here* so that one or both of us can be here to meet with you.

Very best wishes,

Froelich Rainey
Director

Professor Adon A. Gordus
Associate Professor
Department of Chemistry
University of Michigan
Ann Arbor, Michigan

FGR/vg

DEPARTMENT OF CHEMISTRY
THE UNIVERSITY OF MICHIGAN • ANN ARBOR, MICHIGAN

October 18, 1966

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

Dear Dr. Rainey:

I was most interested in the article by you and Miss Ralph which appeared in the 23 September issue of Science.

I have, through the original suggestion of James Griffin of the Museum of Anthropology here, become involved in neutron activation analysis of archaeological materials. We have been analysing Hopewell pot sherds and obsidian and, more recently, I have begun work on coins - silver Islamic coins with the department of Near East studies and Roman 3rd Century ~~of~~ copper coins with the department of Classical Studies. We are just initiating paint pigment studies with the Museum of Art as well.

The first portion of our work began rather slowly but we have now automated the process to a large degree and we anticipate analysing some 10,000 samples per year.

I hope to be in Philadelphia within the year and I wonder if it would be possible for me to come to the Applied Science Center to speak with you and Miss Ralph about some other areas of archaeology where activation analysis could be of some use. If you would interested in them, I would be glad to send you the preprints of the articles which my several colleagues and I plan to write up shortly.

Sincerely,



Adon A. Gordus
Associate Professor

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA 19104

The College

DEPARTMENT OF PHYSICS

February 13, 1980

Dr. J.R. Gancedo
Instituto de Quimica Fisica (Rocasolano)
Serrano, 119
Madrid-6, SPAIN

Dear Dr. Gancedo:

Our MASCA (Museum Applied Science Center for Archaeology) laboratories are now directed by Dr. Stuart Fleming, and I am, therefore, forwarding your letter about Miss Gracia to him.

I hope that you will hear from him soon.

Sincerely yours, .

Elizabeth K. Ralph

bb

April 23rd, 1974

Dr. J. Gray
Isotope Mass Spectrometry Laboratories
Department of Physics
The University of Alberta
Edmonton, Alberta
Canada

Dear Dr. Gray,

Dr. Carriveau has given me your letter of April 8th.

We should very much like to have you come to Philadelphia to discuss your project of oxygen measurements.

Dr. Michael, who is in charge of our tree-ring dating, is here on Wednesdays and Friday mornings. If you could come on one of those days, that would be best.

Let me know if you would like me to make a hotel reservation and so forth.

Sincerely yours,

Elizabeth K. Ralph

DEPARTMENT OF PHYSICS

(403) 432-4127 (CHAIRMAN'S OFFICE)
(403) 432-5286 (GENERAL OFFICE)



THE UNIVERSITY OF ALBERTA

EDMONTON CANADA

T6G 2E1

April 8, 1974

Dr. G. W. Carriveau
Museum Applied Science Centre for Archaeology
The University Museum
University of Pennsylvania
33rd Spruce Street
Philadelphia, Pennsylvania 19104
U. S. A.

Dear Dr. Carriveau:

I thank you for your letter of January 25 concerning samples of dated wood for isotope work. I must apologise for the considerable delay in replying as I have been away for some time. I am particularly interested in doing oxygen isotope work and would be very grateful for any samples of dated wood which Dr. Ralph could provide. (I believe that samples of CO_2 would merely show $\text{O}^{18}/\text{O}^{16}$ ratio of the atmosphere they were produced in.)

If it would help in any way I could arrange to come to Philadelphia to pick up the samples and discuss the project. I believe I have found a simple way of extracting the oxygen from wood and therefore am very keen to get things rolling.

Yours sincerely,

J. Gray
Isotope Mass Spectrometry Laboratories

/mtm



**GREAT PLAINS
HISTORICAL
ASSOCIATION**

AT THE MUSEUM OF THE GREAT PLAINS • P. O. BOX 1122
LAWTON, OKLAHOMA 73502

2 Feb 67

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

Dear Dr. Ralph:

We are returning via Railway Express the Fisher T-10 metal detector which we borrowed from you last summer. It seems to be in the same good operating condition as when we received it.

We found it of little use at the 18th century Wichita site we were excavating beyond collecting objects from the plow zone, an activity pursued by many local collectors. Although metal objects were frequently found in pits and graves, the detector did not reveal them when the pit or grave outline was established. We also used the detector at some earlier contact sites where metal objects are rare, but no success. No doubt much of our failure can be attributed to lack of experience and persistence.

In addition to pits and graves, there were semi-subterranean houses filled with trash at the 18th century Wichita site. Your article in a recent issue of Science has suggested to me the possibility of using one of the techniques described to map the entire village without excavation. (Our excavations indicate that features can not ~~XX~~ always be located by observing trash concentrations on the surface.) The soils are a sandy loam on a Pleistocene terrace of Red River. Although we have no plans for additional work at the site in the near future, I would be interested to know if the site ~~XXXX~~ might be mapped as suggested.

We appreciate very much the loan of the Fisher T-10, and hope that you receive it in good condition.

Sincerely,

Tyler Bastian

February 10, 1967

Dr. Tyler Bastian
Great Plains Historical Association
Museum of the Great Plains
P.O. Box 1122
Lawton, Oklahoma 73502

Dear Dr. Bastian:

Thank you for your letter of February 2nd. We shall be on the lookout for the Fisher T-10 metal detector.

At your 18th century Wichita site, it might be possible to map out the areas of occupation with a magnetometer, especially, our new cesium one. if the general region is magnetically quiet. From your description of it, I imagine that it is quiet.

Sincerely yours,

Elizabeth K. Ralph

EKR/gm

UNIVERSITY of PENNSYLVANIA

PHILADELPHIA, PA 19104

Office of the General Counsel

(215) 243-7660 or 8360

May 1, 1981

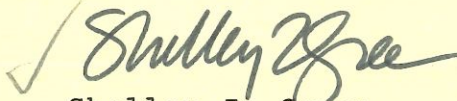
Dr. Elizabeth K. Ralph
BW4 DRL/EL

Dear Dr. Ralph:

I am writing in response to your inquiry concerning the use in scholarly publications of the acronym "RIC" for the term "Radiocarbon International Calibration."

As I explained to you in our telephone conversation, the use of the acronym in an article or book would not subject the author or the University to legal liability, even if a business entity uses or has trademarked the initials "RIC" for a product (other than "Radiocarbon International Calibration"--if that constitutes a "product" at all), unless the author's use of the acronym would tend to deceive the public as to the source of the work. In short, based on the facts you presented, in the absence of any misappropriation of trade secrets or intent to deceive, I see no potential for legal liability solely from the literary use of the acronym "RIC."

Sincerely,



Shelley Z. Green

SZG/d
cc: Walter Wales

THE UNIVERSITY MUSEUM



UNIVERSITY OF PENNSYLVANIA

THIRTY-THIRD AND SPRUCE STREETS

PHILADELPHIA, PA. 19104

CABLE ADDRESS "ANTIQUE"

TELEPHONE: EVERGREEN 6-7400

(AREA CODE 215)

file

June 20, 1973

Dear Dr. Rainey,

I understand that the Museum is seriously considering the purchase of an x-ray spectrometer. I was present at the recent demonstration of this equipment and feel it would be a very valuable addition to the resources of the Conservation Lab as well as to MASCA. It would enable us to obtain quickly and easily the kind of basic information about the composition of objects that is important to curators and archaeologists (and for which they often ask us). In addition, this kind of information is often essential when deciding on a course of treatment. I was very impressed by the range and versatility of the spectrometer that was demonstrated, and would like to add my voice in favor of the purchase of this equipment for the Museum.

Sincerely,

Virginia
Virginia Greene

[Greenman]

DEPARTMENT OF GEOLOGY AND GEOPHYSICS

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASSACHUSETTS

Both can you send a detailed report on work at Sardis. Dr. Phin has reviewed but only briefly.

October 16, 1962

Dr. Froelich Rainey
The University Museum
33rd and Spruce Streets
Philadelphia 4, Pennsylvania

Dear Dr. Rainey:

In June 1961 you held a meeting to discuss the use of certain geophysical techniques for the location of archeological structures. I attended the meeting for the Sardis Expedition, and since that time have spent a little time in geophysical prospecting at Sardis. The purpose of this letter is to ask about your current work, and to report on the work done at Sardis in the last two summers.

So far the geophysical work carried out at Sardis has included only magnetic and electrical resistivity surveying. The former was shown to be unsuccessful. Magnetic measurements were made at the site with a rather insensitive (about 5 gamma) flux-gate magnetometer. These measurements showed no correlation with known buried structures. Various soil samples were carried back for susceptibility measurement, and from these measurements it appeared that for any magnetic detection of buried structures, the sensitivity of the magnetometer would have to be in the .1 gamma range.

The resistivity work was somewhat more successful. The soil in the area ranges from 100 to 1000 ohm-meters, while the local rock is 10,000 ohm-meters or more. Apparent resistivity measured at the surface was therefore increased when the measurement was made over shallowly buried stone structures either man made or natural. Resistivity contour maps would sometimes show the presence of buried structures with rectangular pattern suggesting man-made origin. A great number of measurements was needed to cover properly even a small area. The difficulty of making good ground contacts therefore made data collection very slow. Improved instrument design allowed a somewhat more rapid measurement, but two measurements per minute was about the best that could be done in the Sardis area (although four or five measurements per minute are possible locally under good conditions). The present instrument system will measure V/I ratio of 300 to .1 ohms. Contact

Dr. F. Rainey

2.

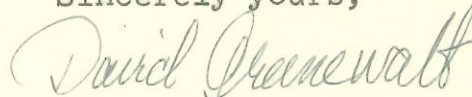
October 16, 1962

resistance for the current electrodes must be less than 15000 ohms, but can be 200,000 ohms for the voltage electrodes. The current generator and voltmeter are separate, since a dipole-dipole electrode configuration is generally used.

Current work includes improvement of the current generator for operation into higher impedance loads, slightly greater voltmeter sensitivity, the design of a more specialized resistivity instrument, and some appropriate modeling work.

I will be glad to give you more specific information if you are interested.

Sincerely yours,

A handwritten signature in cursive script that reads "David Greenewalt". The signature is written in dark ink and is positioned above the typed name.

David Greenewalt

DG:dt

October 24, 1962

Mr. David Greenewalt
Department of Geology and Geophysics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Mr. Greenewalt:

Many thanks for yours of October 16, regarding the use of geophysical techniques at Sardis. I will ask Beth Ralph to give you a more detailed account of the progress of our work at Sybaris and of the research being done at Petty Geophysical and Texas Instruments for us, but I should say that the British Proton Magnetometer was extraordinarily successful at Sybaris. We had a number of non-magnetic anomalies lying in magnetic clays and some magnetic anomalies also which we could pick up to a depth of more than five meters. We should be returning to Sybaris in April with a whole battery of instruments and I would suggest that if at all possible you might join us there for a couple of weeks to see how they operate. In any case a more detailed account of this work will come from Dr. Ralph and we will keep you posted on developments here.

With best wishes,

Froelich Rainey
Director

FR:ad

October 26, 1962

Dr. David Greenewalt
Department of Geology & Geophysics
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Dr. Greenewalt:

Dr. Rainey has asked me to reply to your letter of October 16th in greater detail, and to that effect, I have enclosed a copy of our NSF grant report in which our activities during the past year are described. A more detailed account of our instruments surveys conducted at Sybaris this spring is being published by Eng. Lericci, and I'll send you a copy as soon as available (These are supposedly in the mail now).

I was delighted to read about your instrument surveys. I was talking this morning to Mr. Fox, an engineer from the Philadelphia Electric Co., who has a use for a differential flux-gate magnetometer. Was yours a differential-type and is it available commercially? Mr. Fox has heard of such an instrument that is supposed to be sensitive to 0.1 gamma, and he is trying to find out if it is available. Apparently, few flux-gate instruments are being manufactured nowadays.

Your resistivity apparatus sounds quite elaborate and somewhat similar to that assembled by the Lericci Foundation. We have been using the small "Geohm" manufactured by the Gossen Co., Germany (sold in USA by National Electronics, P. O. Box 1237, Sheridan Wyoming, approx. \$100.). On second thought I guess you saw one of these at Dr. Rainey's meeting. This instrument, of course, is too simplified to use with special electrode configurations, but has seemed to have adequate sensitivity on suitable locations. At Sybaris, in the spring, the water table was much higher than most of the archaeological features so that it was of little use.

If you have extra copies of your survey reports, we should like very much to see them.

Sincerely yours,

Elizabeth K. Ralph

EKR/lm
Enc.

Griffin Wellpoint Corporation

JACKSONVILLE, FLORIDA
EVERGREEN 8-7612

HOUSTON, TEXAS
WALNUT 3-2724

HAMMOND, INDIANA
WESTMORE 1-1662

WEST PALM BEACH, FLORIDA
OVERLAND 3-0702

NORFOLK, VIRGINIA
PHONE 703-625-6524

NEW YORK, N.Y.
CYPRESS 2-1800



881 EAST 141ST STREET
NEW YORK 54, N.Y.

CYPRESS 2-1800

February 27, 1969

Miss Martha Bell
Museum Applied Science Center for
Archaeology
The University Museum
University of Pennsylvania
33rd & Spruce Streets
Philadelphia, Pa. 19104

Dear Miss Bell:

Confirming our telephone conversation, we have forwarded the information which you sent to us to Bless & Company in Zurich, Switzerland who are thoroughly capable in the handling of ground water problems such as you encountered in your excavations.

We have requested that they contact Professor Foti to ascertain whether or not it is feasible for them to be of assistance to you at this time.

Very truly yours,

GRIFFIN WELLPOINT CORPORATION

A handwritten signature in blue ink that reads "David A. Werblin".

David A. Werblin
Executive Vice-President

cc: Tracy Gaulding

DAW:as

August 12, 1968

Dr. Jacob W. Gruber
Department of Anthropology
Temple University
Philadelphia, Penna. 19122

Dear Dr. Gruber:

The travel expenses for John Winter and myself to
and from St. Croix Island, Me. are as follows:

Tolls	\$ 8.36
Gas	16.71
Food	45.15
Lodging (including 2 meals each)	46.28
TOTAL	<u>\$116.50</u>

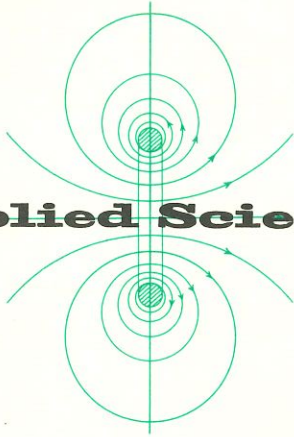
Please address the check for reimbursement to the
University Museum, but send it to me at the above address.

We enjoyed working with you and hope that the
magnetometer results will be of some use.

Sincerely yours,

R/rs
Encl.

Elizabeth K. Ralph



~~J. G. H. N.~~

J. [GRUNINGER ?]

(1)

Applied Science Center for Archaeology

THE UNIVERSITY MUSEUM • UNIVERSITY OF PENNSYLVANIA
33rd & SPRUCE STREETS • PHILADELPHIA 4, PENNSYLVANIA
Froelich Rainey, Director EVERgreen 6-7400 (Area code 215)
Elizabeth K. Ralph, Associate Director
EVERgreen 6-0100 Ext. 8168 (Area code 215)
Cable Address "Antique"

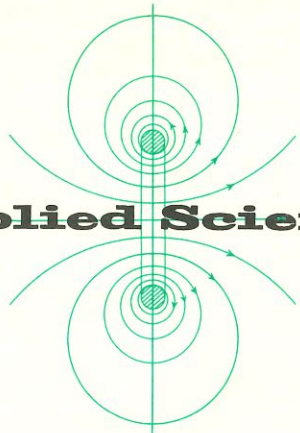
Tues. July 9, 1963

Dear Beth,

Received your letter Mon July 8. Lab. has multitude of problems. Still without power supply for counter II, Hartig no longer answers his phone. Counter I was out of operation from June 26 to July 8, due to counter temperature of 29°C , along with strays and geigers going one or two at a time. Counter I now patched up at the expense of three geigers taken from counter II. Lighton Labs are on vacation until July 15, Mrs Moore included. So much for the electronics.

In the other room the chemistry is going well but the boys in the lab above didn't report their leaking drain and Mon July 8 greeted us with rain from above.

(2)



Applied Science Center for Archaeology

THE UNIVERSITY MUSEUM • UNIVERSITY OF PENNSYLVANIA
33rd & SPRUCE STREETS • PHILADELPHIA 4, PENNSYLVANIA
Froelich Rainey, Director EVERgreen 6-7400 (Area code 215)
Elizabeth K. Ralph, Associate Director
EVERgreen 6-0100 Ext. 8168 (Area code 215)
Cable Address "Antique"

The plumbers have fixed the leak but the ceiling remains wet and in need of paint and/or plaster.

I would like to scream 'Help!' but I don't want you to cut short a few leisurely days in Ireland after all your labors this spring, when little can be accomplished by your immediately return. Counter II seems hopeless until geigers arrive probably sometime in August. Counter I is now working and the office promises to do something about the ceiling and if I keep growling they might. (no sign of Tritium)
The Lab's description does fit both "breakdown and serious problem"

3



Applied Science Center for Archaeology

THE UNIVERSITY MUSEUM • UNIVERSITY OF PENNSYLVANIA
33rd & SPRUCE STREETS • PHILADELPHIA 4, PENNSYLVANIA
Froelich Rainey, Director EVergreen 6-7400 (Area code 215)
Elizabeth K. Ralph, Associate Director
EVergreen 6-0100 Ext. 8168 (Area code 215)
Cable Address "Antique"

, our Dr Rainey's conditions, so if you must come wire flight number and arrival time and I'll meet you at the airport

With best regards,

John [GRUNINGER?]

Physics Department

February 10, 1964

Dr. Claude K. Deischer
Assistant Chairman
Dept. of Chemistry, Room 112

Dear Dr. Deischer:

John Gruninger, Jr. has asked me to send you a letter of recommendation in connection with his application for a teaching assistantship in the Department of Chemistry.

In the radiocarbon laboratory Mr. Gruninger has performed his work with competence and has shown diligence in carrying out the routine work of sample processing and counting. In the course of three years that he has worked here, he has matured from a very young man to a research worker with the ability to tackle new problems by means of thought and analysis. Needless to say, his increasing knowledge of chemistry has been the basic cause of this improvement. I feel, however, that he has demonstrated a better-than-average aptitude for the application of what he has learned to the problems which have arisen here. For example, last summer he made a thorough study of the possible electronegative impurities that might have been present in our carbon dioxide counting gas and then introduced the appropriate reagents in the combustion and associated purification train for their removal. Heretofore these impurities (present in some samples in very small concentrations and absent in others) had plagued us for years.

I suspect that Mr. Gruninger will never be a meticulous research worker, that is, he tends to be a bit untidy but is not careless about things that really matter. His integrity is above question.

Sincerely yours,

EKR:lm

Elizabeth K. Ralph
Radiocarbon Laboratory

Carbon copy for files

The University Museum,
University of Pennsylvania,
Philadelphia,
Pennsylvania.

Sirs:

I am writing a college textbook tentatively entitled Introduction to Physics, to be published by Harper & Row. I would like permission to use, in this and future editions, or revisions, the following material:

Half-tone of a carbon-14 measuring set-up at the University Museum.

Full credit will be given on the page where the material appears.

For your convenience, a release form is given below. The duplicate is for your files.

Yours sincerely,

(G)
Peter Wynne

I hereby grant permission to use the material listed above.

5/4/76
Date

E. K. Ralph
Signature

*Set back picture of purification
train 5/5/76.*

EUGENE H. KONE
PUBLIC RELATIONS

280 KNOLLWOOD DRIVE
NEW HAVEN, CONN. 06515

TELEPHONE
203: 387-1460

April 25, 1976

Dr. Froelich Rainey, Director
The University Museum
University of Pennsylvania
33rd and Spruce Streets
Philadelphia, Pennsylvania 19174

Dear Fro:

I am enclosing a request from Peter Gwynne, science editor of Newsweek Magazine. He was senior author of the story on archaeology, you will recall.

Peter is asking for a photograph of our Carbon-14 setup to include in a physics text he is authoring.

Would you be kind enough to have someone at the Museum take care of this request and sign the appropriate permission which Peter has included.

Many thanks.

Cordially,



enclosures

cc: Mr. Kershaw Burbank, Jr.
Burbank Associates

Kathleen Ryan

*Could you send me
such a photo?
Fro*

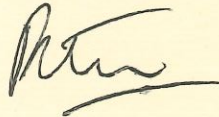
132 Westport Road,
Wilton,
Conn 06897.

April 16, 1976.

Dear Gene,

I'm not sure whether or not I've mentioned that I'm co-authoring a physics textbook. Anyway, we've reached the stage of collecting together the art, and I'm looking for a good half-tone of a carbon-14 set-up. Do you think that you could get me one from the University of Pennsylvania museum? Assuming that you can, I'm enclosing a release form. Thanks for the help.

Yours,

A handwritten signature in black ink, appearing to read "Peter Wynne". The signature is stylized with a large initial "P" and a long horizontal stroke at the end.

Peter Wynne