

Albergo d'Inghilterra,
Via Bocca di Leone 14,
Roma Feb. 12, 1965

Mr. Robert Raikes,
Via Saturnia 30, int. 2,
Rome.

(Former address, Taormina)

Reclung

W

Dear Mr. Raikes:

Dr. Froelich wrote me your name and address last December, saying that you were doing a geological study of the plain at Sybaris, including the well logs and work with the rubidium-magnetometer. Would you be willing to show me whatever results you have obtained; and if so, when do you propose that I visit you? Except for six half-days per week, when I am studying at the library of the Società Geografica Italiana -- four mornings plus the afternoons of the intervening days, Tuesday and Friday -- I am free. In the meantime I shall try to study up the geology, if I can get a map from the Geological Survey here.

To orient you, I should mention that mine is an amateur interest, and that I have been expecting for years to visit the presumed site of Sybaris, in the hope of discerning how a big river like the Crati could have been so successfully diverted by engineers of 510 B/C/. Consequently, I was surprised to ~~read~~ read, in The Times of London, last Nov. 25, that American archaeologists were looking for Sybaris; and I got the information from USIS that the University of Pennsylvania was conducting this work, along with the Fondazione Ing. C.M.Lerici in Rome.

If also you could fill me in on the operational principle of a rubidium magnetometer, I should be much obliged. I have been exposed to the more conventional types, in the course of some early work on the paleomagnetism of the Columbia River basalts; but I am not a physicist and have not attempted to use my library time inefficiently hunting up the half-understood in an Italian library.

The enclosed professional card will give my connections in the U.S. Cards are not our custom there, but they seem to be necessary here; and if you have a portiere where you work, I'll flash one on him, which he will consult you about.

Yours sincerely,

CD Campbell

Charles D. Campbell

✓ cc Dr. Froehlich Rainey

RAIKES & PARTNERS
Via Saturnia 30,
Roma

March 24, 1965.

The University Museum,
33rd and Spruce Streets,
Philadelphia, Pa.
U.S.A.

Attention Dr. F. Rainey

Dear Sirs,

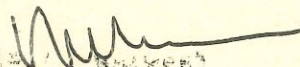
This is to give you formal information regarding the following change in this partnership, and in regard to the future scope and objectives of the same:

With effect from 1st April 1965 Mr. R.G. Edkins is relinquishing his partnership in order to join another firm of consulting engineers, and his place is being taken by Mr. J.G. Pike, D.I.C.(Hydrology), A.I.C.E., P.A.I.W.E.

Mr. Pike will for the time being be resident working partner in the Middle East with his headquarters in Amman, P.O. Box 1735, with primary responsibility for projects in the Eastern Mediterranean area.

It has been decided to restrict the activities of the firm to purely hydrological studies and projects with immediate effect whether independently or in association with general consultants.

Yours faithfully,


(R.L. Raikes)

file

Thelungis

SYBRIS?

Techniques

April 2, 1965

RAIKES

Dear Bobby:

I just have yours about the hydrology study in Mesopotamia and have a copy of Max Mallowan's "Noah's Flood Reconsidered". At Oxford he told me about this and urged us to do something about work at Kafage where we worked before and where he thinks the best evidence of the flood can be found. At the moment I do not know just who would do this on our staff, but Max seems very enthusiastic about it and since we are now working with the British School in Northern Iraq, it is quite possible that some of our people there could do it. Let me poke into this a bit now, and I will be in touch with you about it again.

On the Sybaris business, I think it is now quite certain that we will continue survey work there with the rubidium magnetometer in May and June, and since Mr. Bullitt is very anxious to complete some test excavations, I would like to find out if there is anybody in Italy who could take care of the de-watering process under your scheme. Strictly between ourselves, it seems to me we can terminate the survey job with the Lerici Foundation, and then perhaps deal with the local Superintendente about excavations. But before talking this over with Foti, I would like to have some idea of the cost of de-watering a section for a test excavation. Do you have any more dope on this?

Sorry we never got so far as Pakistan, but we did have a very interesting visit to our sites in Jordan and Iraq and also had a look at the site of Helice, in Greece, which is astonishingly like Sybaris. Marinatos, in

Greece, wants us to have a crack at this too, and I am trying to work out some way to go about it. If we do, we will probably shout to you again. I was glad to hear from Beth that the Sybaris report was well under way.

Very best wishes to you and Janet,

Al always,

Froelich Rainey

Mr. Robert Raikes
Raikes & Partners
Via Saturnia, 30, Int. 2
Rome, Italy

FGR/vg

RAIKES & PARTNERS

(R. L. Raikes e Socio)

CONSULTING ENGINEERS - INGEGNERI CONSULENTI

Partners - (Soci):

R. L. RAIKES, B. SC., M.A.S.C.E., M.E.I.C., A.M.I.C.E., A.M.I.W.E.

R. G. EDKINS, B. A., M.I.C.E., M.E.I.C.

Chartered Civil Engineers

Via Saturnia, 30 (int. 2)

Roma

Telef. 779.350

Telegrammi: AQUALOG

March 29, 1965.

VI-9(a)/2977

Dr. Froelich Rainey,
University Museum,
33rd and Spruce Streets,
Philadelphia 4, Pa.
U. S. A.

Dear Fro,

Since having a pre-view of Mallowan's forthcoming article on "the flood" I have been in correspondence with him about the possibility of a serious technical study of it.

I wrote to him only the other day outlining the form that I thought such a study should take and his latest letter, of 24th March, written just after seeing you has crossed mine in the post. I understand that he mentioned to you my interest in this problem.

I do not know whether you are interested in adding a geomorphology-hydrology study to any dig you may undertake but, in case you are, I enclose a copy of the notes that I sent to Mallowan. I have not so far been able to do anything constructive as I've had no occasion to visit Iraq nor the necessary backing without which any field work would probably lead to my winding up in an Iraqi jail. But from what I've read there is at present a lot of misunderstanding of the problem and also, I fear, a lot of misinterpretation of available data.

Beth and Ellen duly arrived ~~day before yesterday~~ ^{last Tuesday} and Ellen went straight to work on an old north American typewriter of mine. Her first job was to type my part of the Sibaris report which I had all ready in manuscript and which she and Beth seem to like. It has also resulted in a personal phone call from Lerici expressing his great pleasure: so that little bit of friction for which I'm afraid I was partly responsible is now finished. Incidentally I've had notification from Lerici of his instructions to his bank to pay his half of the balance of the account.

./.

We were extremely disappointed not to see you on your way through Rome and hope that your trip has done you and particularly Pen a lot of good. I didn't write Fro when I heard about your loss as the news arrived just before a postal strike that lasted for the whole of my Pakistan visit. I would have written to Pen but judge that it would now be best not to risk reviving unhappiness. If however a suitable occasion arises could you please give her my deepest sympathy. I was awfully distressed to hear about it and wish there were something I could do to help: there never is.

It was for the same reason that I didn't write to Pen to thank her for her hospitality when I was returning from L.A.

Janet sends her love to you both and I mine to Pen.

Yours

Robin Reim

(R.L. Raikes)

March 25, 1965

2965

Prof. M.E.L. Mallowan,
Winterbrook House,
Wallingford,
Berks.

Thank you for your letter of 17th March and for your offer to help. Although the matter is in no sense urgent perhaps I may explain what I have in mind a bit more fully in case the opportunity for your help does arise. While I agree that for practical reasons, the sort of study I have in mind probably has to be associated with a particular expedition it is essential that the study itself should not be localised. The essence of such a study would be:

1) Collection and collation of all published work on the hydrography of Mesopotamia. This is library work for which no assistance would be required.

2) Collection of topographic information which has already been attempted by me, with little success, in the R.G.S. map library (such scanty information as is recorded on the maps regarding absolute levels is not related in any way to prehistoric sites or the stratigraphic levelling data at them.) This part would require assistance if only in obtaining access to irrigation maps: and in getting to Baghdad to study them: and in getting permission to carry out accurate levelling at sites to obtain absolute values of stratigraphic data (or should it be datum ?) as well as the cost of such an operation.

3) Study of drilling logs of any boreholes whether for water or general exploration that have been drilled in the area. This could probably only be done in Baghdad.

4) Study of the solid rock geology of the areas flanking the alluvial plain.

5) Study of all available records of the discharges and sediment loads of the rivers discharging onto the plain.

6) Identification on the ground particularly at the margins of the alluvial plain, of any terrace formations and of any downcutting in tributaries that might indicate changes in morphological conditions; establishing relationship wherever possible between ancient sites and terraces or deeply incised channels; and of course identifying the existence of occupation levels at ancient sites that are now buried and the depth of burial.

7) Evaluation of all the above data; its combination into a comprehensive and comprehensible morphological whole; and a tentative reconstruction of morphological events with particular emphasis on the types of evidence that should be sought in future excavations.

No matter who ultimately carries out a factual study of this nature will need to do at least the above and possibly more and the collaboration of a geologist familiar with the area would be essential. To the extent that any such study was aimed at identifying prehistoric events - as distinct from the early irrigation studies already carried out - the scope of investigations would be limited to some extent. Whoever, if anyone does this will have to spend a certain amount of time in Iraq and would be involved later in quite a major office study. It may well be that the results obtained, however authoritative, would not justify the time and money spent on them. The only reason why I put forward the idea originally and now elaborate it is that there is undoubtedly a growing interest in this sort of thing. In my own case it is evidenced by the fact that I have been retained in the course of little more than a year for three major projects of this kind. The results of one, investigations of the Mohenjo-daro floods, will be appearing in Antiquity this summer.

I am sorry if I seem, as I probably do irritatingly persistent !

Yours very sincerely,

(R.L. Raikes)

January 7, 1966

Eng. R. L. Raikes
Via Saturnia 30
Rome, Italy

Dear Bobbie,

On the basis of the anomalies found with the more sensitive cesium magnetometer, I have made a plot of possible structures, etc. as shown on Map C enclosed. The black areas represent sand starting at depths of about 4 meters, and the x's, pockets of clay extending down to 7 meters or more with negligible sand.

There are some interesting correlations with your contour plot of buried dunes. Structure A in Q 1 corresponds exactly with your dune promontory (section 3). The sandy trough in Q 15 matches a similar trough area on your plot. It looks to me too that one river ran north of the Wall and out through this depression.

I am anxious to hear your comments, especially in regard to the pockets of clay.

With best regards to you and Janet,

E. K. Ralph

EKR:rs

RAIKES & PARTNERS

(R. L. Raikes e Socio)

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Roma

Telef. 779.350

Telegrammi: AQUALOG

January 11, 1966

502/1 - 19

Miss E.K. Ralph,
Associate Director,
University Museum,
University of Pennsylvania,
33rd and Spruce Streets,
Philadelphia 4, Penna.

Dear Miss Ralph,

Thank you for your letter of January 7, 1966 enclosing Map C.
Mr. Raikes is at present in Saudi Arabia and we will hold your
letter until his return on about January 20th.

Yours faithfully,



For. R.L. Raikes

RAIKES & PARTNERS

(R. L. Raikes e Socio)

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J. G. PIKE, D.I.C. (Hydrology), A.I.C.E., P.A.I.W.E.

Chartered Civil Engineers

January 29, 1966
502/1 - 57

Miss Elizabeth K. Ralph
Applied Science Center for Archeology
The University Museum
33rd and Spruce Streets
Philadelphia 4, Pa.
U.S.A.

Dear Beth,

I have at last got round to answering your letter: thank you very much for it.

I have put my original tracing over your print and have found the comparison very interesting. But before making comments could you answer a question or two please?

Do the areas that you have indicated as clay and shallow sand respectively represent a complete picture or was your cesium magnetometer survey done on a sampling basis? Put another way, is there sand only where you have shown it and deep pockets of clay only where they are shown? And if so, what happens in the intervening areas?

I have assumed for the purpose of this first comment, that the answer to the first question and its restatement is No.

One other question: when you refer to "north of the wall" I assume you do not mean immediately north of it or do you?

If you mean the long "valley" running from Casa Bianca in a westerly direction across the word Strada (of Strada delle Bruscate) in which I have indicated a relatively high col at about -4 metres where this valley intersects the modern road-you may well be right but there are other possible explanations. If this was a river bed

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its geometry suggests that it was that of the Coscile and not of the combined Crati-Coscile and in this case the relatively high col may represent a tidal bar. Alternatively the whole configuration suggests to me erosion of the dunes by various combinations of landwater and tides.

Now for some general comments.

I have obviously shown the "wall" in the wrong place. I transferred it to my map as best I could from information available. I like it better in the right place. On my map I showed a re-entrant gully immediately south of the western part of the wall. That such a re-entrant exists seems fairly certain but the contours of its southern flank as shown by me are only guessed at. All we know is that there is deep clay at one or two points in the re-entrant and that, to the south of it, the sand extends up to + 2.9. It now seems possible that the contours of this flank should be closed up to the right position of the wall. If this is so the case for regarding the wall as a river-training structure becomes untenable and the two re-entrants, one from the west and the other from the east become evidence of erosion rather than of a river channel. Was the wall then perhaps a defensive structure enclosing the high dune area to the south of it? If so, the modern Crati has removed all traces of its more southerly part.

It is difficult to hazard a guess about the pockets of clay until you give me the answers to my questions. They may well represent the seaward extension of the channel or channels of the Coscile: probably channels because I suspect that there is a former river bed (or erosion gully) between your structures A and Q2.

Why don't you come to Rome to discuss it? It's just coming up for a nice time to visit us.

When you next see Fro can you tell him that I sent to Prof. Mallowan just before Christmas the manuscript of the article that he had invited me to write about the physical evidence for the Biblical flood. It seems to me that the evidence, scanty as it is, is quite enough to justify an expedition aimed exclusively at elucidating the flood or floods.

With love (best regards for ^{you} !) from Janet and me.

Bobbi

February 8, 1966

C
Eng. R. L. Raikes
Via Saturnia 30 (int. 2)
Rome, Italy

Dear Bobbie:

Many thanks for your good letter. I hope that I can answer your questions in a lucid way.

O
P
The areas indicated as clay and sand probably represent the complete picture of pronounced anomalies within each grid (Only the regions within the dashed grid lines, Q1 to 24, were covered, but they were covered in complete grids.) The pockets of clay and sand indicated were based on pronounced magnetic and anti-magnetic anomalies, respectively, most of which were confirmed by drilling. It may be that each one is more extensive than shown within the grid, but we didn't have time to test lesser anomalies by drilling.

Y
I can't seem to find my reference to "north of the wall", but I'm sure that I didn't mean immediately north of it. If I was writing about the possible location of a river, I was thinking of about 300 meters north, in line with the "valley" of sand running from east of Casa Bianca toward the west in the direction of the word Strada. As you suggested it might have been the location of the Coscile, but not of the combined rivers.

Ellen thinks that the wall was not a defensive structure - mostly because it is faced on only one side (north side for the Greek part of it; south for the Roman). She thinks also that it should have been built on flat land. As she observed, the ground level was well above the sand and was level with the top preserved course of the earlier wall. It wasn't built until after 360 B.C. anyway.

About that miserable mortar, found in the drill holes, we are waiting for a report from Dr. Klein, a geomorphologist, who is studying it in comparison with Roman mortar, natural conglomerate, etc. We think there is a possibility that it isn't man-made or that it is early.

It would be much easier and more fun to discuss this in Rome, but I don't plan to return until the end of March - there's too much to do here.

With love to you and Janet,

EKR:pc

RAIKES & PARTNERS

(R. L. Raikes e Socio)

CONSULTING ENGINEERS - INGEGNERI CONSULENTI

Partners (Soci):

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J. G. PIKE, B.I.C. (Hydrology), A.I.C.E., P.A.I.W.E.

*Beth -
Please send
on to Mr. B. [unclear]
no*

Via Saturnia, 30 (int. 2)

Roma

Telef. 779.350

Telegrammi: AQUALOG

502/1

March 8, 1966.

Dr. Freulich Rainey,
The University Museum,
33rd and Spruce Streets,
Philadelphia, PA 19104,
U.S.A.

Dear Bro,

I was delighted to get your letter of 5th March and to hear that you're going to have another go at Sybaris.

Certainly, I can join you sometime late April or May as your professional consultant and shall be most pleased to do so. As you know I have been firmly convinced that you were hell-bent on suicide/homicide digging in the way that you were, from the time you first came to see me in Rome! So count me in.

The only tackle that I will need will be the large scale photogrammetric mapping and the records of previous drilling in the area that you are now going to search as I assume that you will have a surveyor's level.

*B -
can you
send
?*

Yes, Beth sent me a plan showing what she had found with the cesium magnetometer and we've been corresponding about it.

On the face of it your suggestion of a number of deep wells seems worth considering. If they were disposed around the area of the dig they would act, to some extent, as a well-point system. My only fear is that you might need quite a lot of them or alternatively a few of high output that probably could not be put down for Enrico's estimated cost of \$250 each. They would be draining the underlying sand which is what is needed but unless we can assume that the sand is homogeneous all the way down (i.e. no beds or lenses of impermeable material) the wells would have to be slotted and screened for the whole depth in the sand. I doubt whether properly screened wells could be done at Enrico's

figure but if he has an experienced local driller he may be quoting from experience : without proper screening you would be in trouble as the pumps would either choke or you would pump out quantities of sandy water and create a cavity. Perhaps Enrico's man could put down one test bore hole and pump-test it in my presence before we make a final choice ?

I have not been idle about the Ur flood that Mallowan discussed with you. He has now accepted an article of mine that reviews the small amount of evidence available and suggests a combined and wide-spread assault on the problem through archaeological soundings at a selection of sites, deep augur-hole sampling of the material of the plain and some topographic level-lines. All the results to be considered together by archaeologists, soil specialists, a geologist and a hydrologist. The article will be out in Iraq during the Summer. Are you still interested in this ? I could nominate a reliable outfit, familiar with Iraq, for the augur-hole programme and photo-interpretation and would dearly love to co-ordinate the applied science part of such a project.

George Dales will be passing through and stopping one night in the near future. He has something he wants to discuss with me.

Yours ever

B. R. R.

March 15, 1966

Eng. R. L. Raikes
Via Saturnia 30
Rome, Italy

Dear Bobbie:

Fro has shown me your letter of March 8th and I am writing to say that I expect to land in Rome on March 24th. If you are there, perhaps we can discuss pumps and things so that if we need more electric ones and a generator, I can order them while in Rome. I'll bring drill records and some maps. I am going to the Hotel Boston because I have so many errands in that neighborhood. Among other things, I have to buy 2 tents. I hope that they can be found in Rome.

I'm looking forward to seeing you and Janet.

With best regards,

Beth

ROBERT L. RAIKES & PARTNERS s.r.l.

Consulting Engineers & Hydrologists

Tel.: 9459539

Cables: Aqualog Grottaferrata

VIALE KENNEDY 18
00046 GROTTAFERRATA
(ROMA)
ITALY

Your ref.

Our ref. 703 - 648

24th September 1976

Mrs. E. K. Ralph,
MASCA,
The University Museum,
33rd and Spruce Streets F1,
Philadelphia,
Pennsylvania 19174,
U.S.A.

Dear *Beth,*

I hesitate to follow up the idea we discussed, which may not have been meant by you very seriously. It concerned finding a means by which I could earn sufficient honoraria (from lectures and/or seminars in the States) not only to pay my way across the Atlantic and between centres in the States but also a bit more so that my firm would be reconciled to losing a chunk of my services. Anyway I have assumed you meant what you said and that you will follow it up. So here is my normal C.V. (the version used for North America) with some additional matter on my archaeological activities, which you asked me to send. I believe that very cheap 30 day return tickets are available at least from London, across the Atlantic: they may be available from Rome too which would make a further substantial saving. I know nothing about fares within the States and these would in any case depend on the itinerary but I would guess that "external" travel costs, which I would certainly have to bear, would amount to about \$1000. Last time, in 1968, the total of lecture fees was around \$1600 with the amounts varying a great deal from one University to another and my hotel bills were paid for. The transatlantic fare was then considerably lower and travel in the States was at half price through what was called a "President's Hospitality Card" available to bona fide non-residents. The fee covered some 20 odd lectures and seminars that I fitted into 15 working days - it was quite hard work! I imagine that honoraria have substantially increased since then and that something organised on the same sort of lines would show about the same modest profit now as then.

During that tour I visited University of Illinois at Urbana, Southern Methodist (Wendorf) at Dallas, University of Texas at Austin, University of California Berkeley (Dales), Santa Cruz (Bronson), University of Nevada, Reno (can't remember the contact), Stanford (Dept. of Civil Engineers), Tucson (Harlem and others), Oriental Institute Chicago (Braidwood). The last was not part of the lecture tour but simply an easily made contact with Braidwood. Only the underlined ones might be worth repeating since the others were more concerned with Hydrology. Notable omissions are of course your place and Harvard neither

.../

Mrs. E. K. Ralph

24th September 1976

of which, so far as I know, was approached that time. The organiser on that occasion was David Todd of Berkeley, a professor in the Civil Engineering Faculty and good and continuing friend of mine, whose objective was to bridge the gap between applied science faculties and those dealing with the humanities.

If any eventual tour could be easily routed so that Washington could be taken in without (or with only a little) extra cost a couple of days there, to see World Bank, would be useful for my own firm's work.

I've an idea that David Todd might be a good person to approach but I am certain that it would be better if it came from you. The lecture I gave at Berkeley to combined engineering and archaeology students was the most rewarding in terms of audience response and the seminar organised by Desmond Clark was among the most stimulating for me.

Well I guess that's about all I can say at this stage.

It was extremely nice seeing you again after so long and it was one of the few things that made that dreadful conference bearable. Janet sends her love.

Yours
Bobbi

Enc.

October 22, 1976

Dr. R.L. Raikes
Via dei Mattei
00030 Colonna (Roma)
Italy

Dear Bobbie:

Many thanks for your letter of 24th September. Even though our discussion took place with two good bottles of wine, I remember it very well.

I am trying to find some honoraria. So far three good possibilities are IBM, Princeton University, and Westchester College. It seems to be too late to schedule a series of lectures for the Archaeological Institute of America for this year. However, I shall continue to contact various Universities.

I think that the weather for travelling would be better after the "Oxford" conference than before.

With best regards,

ELK. Ralph

R. L. RAIKES
(Professional Engineer and Hydrologist)

Date of Birth: 6. 11. 1910

Degrees:

... B. Sc. (Engineering) London University 1932

Professional Institutions:

... Fellow of the Institution of Civil Engineers

... Member of the American Society of Civil Engineers

Professional Associations:

... Member of the Association of Consulting Engineers of U.K.

... Member of the Association of Professional Engineers of the
Province of Ontario, Canada

... Member, British Section, International Commission on Irrigation
and Drainage.

Learned Societies:

... Fellow of the Royal Meteorological Society

... Fellow of the Geological Society

... Member of the British Ecological Society

... Fellow of the Society of Antiquaries of London

Publications:

... A Paper on Statistical Methods Applied to Rainfall Analysis
Engineering Journal (Canada) 1959

... A Paper on the Conversion of Storm Rainfall to Run-off, at the
First Canadian Hydrology Symposium, Ottawa, 1959

Experience:

... From 1934 to 1951 general civil engineering experience with Consultants,
and, after war service in Royal Engineers, 5 years with contracting firms.

... From 1951 to 1961 continuous work on hydrology and the engineering problems
and developments arising from it, including design and/or execution of
water development projects in Baluchistan, Canada, Sudan, Ceylon. From
1951 to 1955 as a senior engineer of Sudan Government; from 1955 to 1957
as an Expert of FAO; from 1957 to 1961 as Consultant.

- ... From the founding of Raikes and Partners in Rome in 1961 to the present date hydrological projects in Jordan, Saudi Arabia, Libya, Pakistan, Greece, Malawi, Indonesia and Ethiopia.

Specific Hydrological Projects undertaken during the above period:

- ... Water resources development in the whole of Darfur Province, Sudan (about 260,000 square kilometres).
- ... Colombo Plan (Canadian) natural resources survey of Ceylon in which hydrology played a major part, as Adviser.
- ... Flood peak estimations and "flood-lining" of all the six or seven rivers discharging into Lake Ontario through the Metropolitan Toronto Area.
- ... Flood studies in northern Ontario around Sudbury.
- ... As Resident Partner, on a development project in Baluchistan, for pre-investment survey of the Porali River Basin (8,000 square miles) involving co-ordination of hydrology, pedology, geology, groundwater and preliminary engineering studies. A supplementary preliminary report on the project was produced after the setting up of Raikes and Partners.
- ... A ten-year project involving assistance through qualified staff in setting up a National Hydrological Survey in Jordan.
- ... In charge of Raikes and Partners work in association with Italconsult for hydrological investigations in southwestern Saudi Arabia (over 300,000 square kilometres).
- ... Hydrological survey in western and southwestern Saudi Arabia (about 500,000 square kilometres) for Saudi Government.
- ... Report for UNOTC (UNDP) New York on measures to be taken to determine the availability of water from Lake Malawi and the Shire River.
- ... Water Resources Investigations, Lampung Province, Sumatra (Indonesia).
- ... Hydrometeorological aspects of Southern Rangelands Development project in Ethiopia.
- ... Water Resources Adviser with FAO/IBRD team in Ghana.

Languages

English (mother tongue), Italian and French. Some Arabic.

Summary of Archaeological Environment Studies Carried Out

- ... Mohenjo-daro with Dr. Dales of University Museum, Philadelphia.
- ... Shahr-i Sokhte (Seistan) with Professor Tucci and Dr. Tosi of ISMEO.
- ... El Fayum (Egypt) with Professor Puglisi of Istituto di Palaeoetnologia, University of Rome.
- ... Arslan Tepe and area[✕] (Turkey) with Professor Puglisi.
- ... Beidha (Jordan) with Mrs. Helbaeck (Diana Kirkbride) under British School of Archaeology in Jordan.
- ... Kalibangan (India) with Dr. B. B. Lal and Dr. B. K. Thapar of Indian Archaeological Service, under auspices of British Academy.
- ... El Geili (Sudan) with Professor Puglisi of Istituto di Palaeoetnologia University of Rome and Dottoressa Canova.
- ... Baluchistan (Pakistan) surveys carried out in voluntary collaboration with Pakistan Archaeological Service.
- ... Tepe Yahya[✕] (Iran) with Professor Carl Lamberg-Karlovsky of Harvard University.
- ... Rud-i Gushk (Iran) with Miss M. Prickett of Harvard University.
- ... Sybaris (Italy) with Dr. C. F. Rainey of University Museum, Philadelphia.
- ... Lucania[✕] (Italy) with Dottoressa Cippoloni of Istituto di Palaeoetnologia, University of Rome.
- ... Palaeometeorology of Transjordan carried out independently.

All except the items marked [✕] have resulted in reports or published articles,

List of Archaeological Publications

- "Water, Weather and Prehistory" a full-length book published by John Baker, London 1967

- "The Prehistoric Climate of Baluchistan and the Indus Valley"
R.L. Raikes and R.H. Dyson Jr
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- "New Prehistoric Bichrome Ware from the Plains of Baluchistan"
R.L. Raikes
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- "A Pre-pottery Settlement in Southeast Jordan"
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- "The End of the Ancient Cities of the Indus"
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- "The Ancient Gabarbands of Baluchistan"
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