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About the Institute

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.



WEST HAM COLLEGE OF TECHNOLOGY
DEPARTMENT OF CHEMISTRY
AND BIOLOGY

D-644

Head of Department:
M. K. HARGREAVES,
M.A., Ph.D., D.Sc., F.R.I.C.

ROMFORD ROAD,
STRATFORD,
LONDON, E.15.
MARYLAND 4545

Dr A. Traverse,
Palynological Laboratories,
College of Mineral Industries,
Pennsylvania State University.

6th April, 1967.

Dear Dr Traverse,

Enclosed, you will find an order for certain volumes of The Catalog of Fossil Spores and Pollen. Dr Bill Chaloner (with whom I am working on Tertiary Pollen and Spores in Derbyshire) suggested that I send the order thro' you, so as to "speed delivery up a bit". If there are any new volumes on Tertiary material, I would be very pleased if you would add them to the list. I assume that I send my money along later.

I only started my present Tertiary Research a few months ago. Our deposit (sink holes in Carb. Lst. infilled with Tertiary clays) is so far yielding pollen or spores of such things as: Polypodiaceae, Sphagnum etc., Sequoia, Taxodium, Abies, Pinus, Podocarpus etc., Alnus, Betulaceae, Ericaceae etc. Also, plant fragments of Sequoia, Abies etc. leaves and shoots; and many small fruits and seeds. Wood is also remarkably well preserved in some of the deposits, and is likely to provide good information. Perhaps you would like some photographs of the more controversial specimens?

Best Regards,

Michael C. Boulter.

June 26, 1967

Mr. Michael C. Boulter
Department of Chemistry and Biology
West Ham College of Technology
Romford Road
Stratford, London E. 15
England

Dear Mr. Boulter:

I have been working through my unanswered correspondence and came across yours of 6 April to me. As far as I can tell, I haven't yet answered it, so here goes. Sorry about the long delay.

It is good to hear of your work with the Tertiary materials from Derbyshire that you described. If you wish to send them, indeed it would be interesting to see the pictures that you mention. Perhaps I might even have some ideas that would be useful.

Very best wishes to you in your work and do not hesitate to ask if there is any way that I can be helpful.

Yours very truly,

Alfred Traverse
Associate Professor of Geology

AT:kaw

5 May, 1977

Dr. Michael C. Boulder
N.E. London Polytech
Romford Road
London E15 4LZ, England

Dear Mike:

The most recent IOP Newsletter contained the startling information about Hans Tralau's death and your seccession as secretary of IOP. I do hope you have great good fortune as new secretary. In order to help in a very small way in that direction, I enclose my check for my annual dues.

Looking forward to seeing you one of these years and with best wishes, I am

Yours very truly,

Alfred Traverse
Professor of Palynology
President, ICP

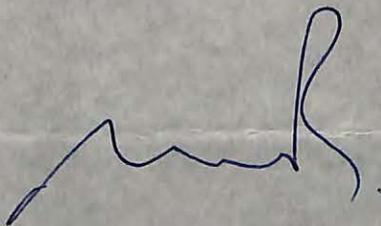
AT/et
encl. check for \$4.00 to IOP

ps

I think you may know that there is mounting pressure for a joint meeting of the ICP and IOP committees to take place at Cambridge 1980 to discuss the relationship of the two bodies at a formal level. Hughes and Archangelsky have written to me specifically and I know that Jim Schopf is also anxious to aid any form of discussion.

As I understand it Hughes will be having a congress meeting at the end of this year and it might be a good thing if some suggestion was presented to him before then. I think that one problem is that many IOP executive members (list enclosed) are unlikely to attend Cambridge, but we can certainly council opinions through the mail from those not attending.

I'm not too sure myself what actually needs discussing, unless it is a question of bringing international palynological representation more into line with the strictly palaeobotanical. This would surely be good, if it would mean that megafossil workers would become more influenced by the palynologists, and vice versa.



NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

19th September 1978

Dear Al,

If the polytechnic gives me permission to take leave of absence I hope to be in South Africa from mid-February until mid-March next year. While I'm about it, and knowing something of the way the place works after 15 years experience, I think I would do well to ask for an additional month off at the same time, and come over to the United States. I have it on some authority that I'll get permission, and the South Africans will pay my travel to Bloemfontein.

The work there is interesting and is not irrelevant to part of the reason why I'd like to visit you too. Joanna Coetzee is beginning pioneer work on Tertiary palynology in boreholes off Cape Town: we will consult and cooperate on problems of identification, age determination and botanical affinity etc. Can the sem help reconcile comparisons between European based form-genera and South African ones? There does seem to be a great deal of similarity between her assemblages and European ones.

Briefly, I wonder if a closely juxtaposed visit to North America would make an interesting comparison just after this study. This is why I write to ask if it would be possible for you to see me in Penn State for a few days to share in discussions and perhaps more long term studies.

To stimulate things along a little I have been spending some hours at the typewriter on an essay of some relevance. To some extent it is a development from that terrible diatribe I sent you about six months ago and which you were kind enough to comment on. I enclose the first version of this; at present I see it only as a means of clearing my own mind.

If I get permission to take a month off from college for both Africa and America I would travel south alone on an expense account and return to bring Bidy and our one year old baby across to the States at our own expense. This means that we would be in your country from about early April to early May. I would hope to see Dilcher, Hickey and Schopf and am writing to them accordingly. We would arrive in New York and stay there for a day or two: do you have any suggestions about a cheap and conveniently situated base for our family with easy access for me to visit those mentioned? And do you know of any way in which I might be able to get some small financial help?

Yours

Mike

IOP

*file: comes.
Boulter
not Sep*

INTERNATIONAL ORGANIZATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES
-SECTION FOR PALAEOBOTANY

President: Prof. T. DELEVORYAS, USA

Vice Presidents: Prof. E. BOUREAU, FRANCE

Dr. S. ARCHANGELSKY, ARGENTINA

Dr. S.V. MEYEN, USSR

Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

23rd January 1979

Dear Al,

Since I last wrote to you back in September much has happened to influence the content of that letter. Delightfully Bidy is pregnant again, and I have permission to leave my college to travel to the States sometime around April. My trip to South Africa during February and March is also on. Because flying is dangerous for pregnant ladies, and because we are short of cash, I will travel alone. And because I'll be away for a month in South Africa it is unfair on Bidy for the U.S. trip to be longer than a week.

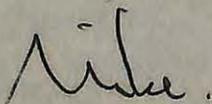
I've written to Ted with two alternative plans: 1. that I travel by cheap return from London to Texas, 2. that we both travel to Bloomington and hold our talks with Dave Dilcher, who has kindly offered to lend me a bed. I don't have money or time to go to Texas and Indiana myself.

If Ted can cope with the second alternative I would very much like to come over and see you, as I intimated in the September letter. My American friends suggest that I hire a car at Indianapolis airport and use it to travel to Bloomington and to you at Penn State. There should be time for about three days to spend on that Bloomington to Penn State trip, hopefully some time during April. That should give time for us to talk Tertiary palynology as well as IOP - ICP, and for me to give a lecture if that is appropriate.

I will write with further details once Ted has responded to last week's letter; if that means I am to go to Texas, it would be very difficult to afford any meeting between us. Unless there are problems with these plans that I've not foreseen such as you being away during April, it is perhaps best for you to delay any reply until I write again.

Belated good wishes for the new year.

Yours sincerely,



Mike Boulter

Hunt Institute for Botanical Documentation

ps I do hope you can respond positively to the attached request

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

Copy

TO: Dave Dilcher
Ted Delevoryas
Al Traverse

3rd April 1979

FROM: Mike Boulter

VISIT TO USA, APRIL 1979

The travel agent has finally given confirmation of the following bookings for my journey later this month, so I write now with final details. The programme is very tight I'm afraid, due to heavily booked flights over the Easter festival and because I have to be back here before the end of the month. Confirmations of the bookings on all the internal flights have not yet been received, and the Amtrak journey is also only tentative. There is also the added uncertainty from the radiation leak which may cause alteration.

Wednesday 18 April leave London 14.15hrs arrive Chicago 15.45
leave Chicago 17.00 arrive Bloomington 19.20
~~Mon~~
~~Sun~~ day 23 April leave Bloomington 14.00 arrive Indianapolis 14.50
leave Indianapolis by Amtrak to arrive at Huntington
~~Wednesday~~
on April 24 08.30hrs.
~~Tuesday~~ 25 April leave Huntington 08.40 to Philadelphia for London

Because the Amtrak trips are unconfirmed I will telephone Al from Bloomington to confirm the final stages of the journey; the alternative to a night sleeping by train seems to be a lot of short flights with odd connecting times. The flights transatlantic flights are booked as an 'open-jaw' Apex and so cannot be changed.

Looking forward to everything.

Mike

XXXXX

24 October, 1979

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

You sure can pack a lot of information into one small postcard! We should be seeing each other in the summer of 1980 all right. Betty and I have been looking forward to that for a very long time, and only some (God forbid!) big problem would prevent a U.K. trip for us next June.

That was an interesting suggestion you had of a visit for you here during the "next decade". The only problem, as usual, would be funding! The best approach for you on that score would be to apply at your end for a Guggenheim Fellowship, or perhaps a NATO Fellowship. I have just recently found out that people from the NATO countries can apply for support of sabbatical-type trips. I just had a woman from Turkey here on such. The headquarters for NATO Fellowships is in Belgium (Scientific Affairs Division of NATO, Blllo, Brussels). There are also other sources of external funding for sabbatical-type projects. Penn State almost certainly would not be in a position to help, except in providing a locus, unless there were major changes in the faculty that required assistance from a visiting professor or something of that sort not contemplated.

Looking forward to seeing you next June, and with very best wishes from both of us, I am

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

Dr W.C. Barnes
Department of Geological Sciences
University of British Columbia
6339 Stores Road
Vancouver
Canada V6T 2B4

3rd January 1980

Dear Dr Barnes,

In response to your advertisement in today's Nature please accept this letter and the attached two pages as my application for the post of Assistant Professor in Biostratigraphy.

You will see from the attached pages that I have both teaching and research experience in "biostratigraphy, micropalaeontology and paleoecology". From 1964-74 I spent most of my time teaching systematic botany and researching Tertiary palaeobotany and palynology. This developed a more functional interest and involvement in stratigraphic problems of the European Tertiary so causing me to shift my emphasis to palynological biostratigraphy over the last five years. This has been the centre of my research activities during these years and has helped with the fifteen week course in "Applied Palynology" that I have given since 1977 to students at Imperial College. This involves a great deal of general biostratigraphy with particular emphasis on problems that the tool of palynology can help resolve.

For the last five years at this college, I have concentrated on initiating student centred programmes of "Independent Study" and have played a leading part in developing such innovatory courses in Britain. I would view such methods as being important in any teaching work that I might do elsewhere.

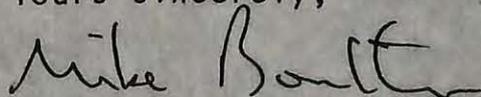
With their kind permission confirmed my three referees will be:
Prof W.G. Chaloner, Botany Department, Bedford College, Regent's Park,
London NW1.

Prof D. Dilcher, Department of Biology, Jordan Hall 138, Bloomington,
Indiana 47401.

Prof A. Traverse, Department of Geosciences, Pennsylvania State
University, Deike Building, University Park,
Pennsylvania 16802.

The last two of these know me quite well, and are easily accessible on your own continent. If you would prefer more intimate referees in this Old World, please let me know.

Yours sincerely,



Mike Boulter

copies: W.G. CHALONER, D. DILCHER, A. TRAVERSE.

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

3rd January 1979

Dear Bill, Dave & Al,

Though it's very much a shot in the dark Bidy and I felt it worth a try to change our life through today's job advertised in Nature.

Will you please be kind enough to act as one of the three referees that are requested? Don't bother to reply to this letter unless you feel unable to make some comments if requested to do so.

Clearly it's a big move for us and there's no way in which I'd get really interested without Bidy seeing and smelling the Canadian Pacific. So there's a long way to go before it becomes really serious. But things don't look too good in London E154LZ right now. Government cuts making large redundancies and creating consequent pressure for teaching and administration on those that remain are likely to make the unpleasant (yet well paid) job that I already have even worse.

Best written wishes to Dave and Al for 1980. I do so hope that the summer will bring us together in good spirits.

Yours,

Mike

Mike Boulter

7 February, 1980

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

It has taken me too long to reply to yours of 3 January which, besides, was long in getting here. Of course I am happy to be a referee for you for your application to UBC.

Your wife would love British Columbia! Marvellous place.

Enough said. Best wishes! Good luck!

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

IOP

INTERNATIONAL ORGANIZATION OF PALAEOBOTANY

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Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

115-80

AI -

Don't forget free accommodation
in London this summer if it's
useful

- yours

- Mike
Boulter

20 March, 1980

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

Thanks for the two reprints. Have enjoyed them very much. Oligocene people have to stick together!

We might take you up on your accommodation offer in London. Do you really mean it? It would be on the way back to USA from the post-Conference field trip in Scotland, and we might stay two or three days (\pm 16-18 July), so that Betty could see a little of London. Would you be out of town, though? We'll look forward to hearing.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

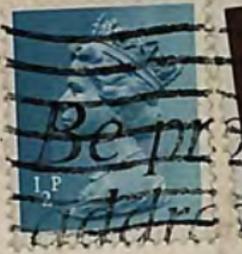
AT/et

© British Museum (Natural History) London SW7 5BD

All - Of course we
You are booked
at our home #16-18
large double-bed room at
18 Packerington Street, Islington,
London N1. If we are not
here - most unlikely - then
that makes no difference
other than being quieter
without our 2 baby boys.
We're both looking
forwards to it, greatly.
SIPC looks good!

PAID
15
18 APR
1980

By air mail
Par avion



Prof A Traverso
Dept. Geosciences
Penn. State University
University Park
Pennsylvania
16802

Yours - Mike Butler / USA

Fossil poplar leaf

A leaf of a poplar, *Populus latior*, from the Miocene of
Ohningen, Germany. About two-thirds natural size.
Miocene: million years ago

Card G142

8 April, 1980

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

Well, o.k.--we have cancelled other tentative reservations and look forward to staying with y'all. It sure will save a lot of money--what with \$\$ being worth so few ~~¢~~, that's very nice!

I hope I can buy a few of those neat postcards! I wouldn't ~~would~~ mind a chunk of the siltstone to pollenanalyze either!

All the best. See you in Cambridge in June, and in London, July 16-18. Thank you again for the invitation.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

P.S. Babies don't bother us at all. We have a 3-month-old in residence in the office all day Monday, Wednesday, and Friday this term--her mother, a grad student of Al's, rides with us from Huntingdon, and doesn't have any other place to leave the offspring. You can imagine how crowded the premises are with the addition of a carriage to the furnishings!

Betty

4 September, 1980

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

Here's evidence you can use of your "wound" at IPC.

All the best. Greetings to Biddy and those great kids.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et
encl: photo

5 September, 1980

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, England

Dear Mike:

My daughter, Celia, is a convinced "evangelist" for the anti-cigarette forces in this country. I'm sending you one of her "packets" to help you chuck the habit (Bidly, too). Hope you like this. The T-shirt iron-ons should be especially helpful.

Haven't done any good yet re our discussions but will keep ears and eyes open.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et
encl: anti-cig materials

18 Packington Street
London N1

October 21st 1980

Dear Betty and Al,

This is to thank you for all your various communications through the mail since you were here. As you will see, some is without logical forecast. But the photograph is predictably long and short!

The really funny thing is that your cigarette smoking propoganda package arrived here today, ten days after Bidy and I decided to stop smoking the dreadful things. We have not had a fag since. I do believe in telepathy. And other influences....perhaps. It is very hard after 20 years of 30 cigarettes a day. We are very impatient with one another and all concentration is very difficult. We are determined to succeed and your timely leaflets and badges are a very real and great help. It is all greatly appreciated. I have also stopped drinking spirits as part of the same useful package. The two went well together and can be stopped in unison with a compatible effort.

Al- things here are getting out of the psychological doldrums that formed the basis of my plea for help in job searching. The project on Palaeocene palynofacies is being supported by Shell, Esso and BP to give me two research assistants next month until 1982 and a new lab. in my college which is pretty good. We hope to interpret the dispersed plant debris quantitatively and subject the results to the kind of principal component analysis that Rex Harland uttered on behalf of Richard Hubbard and myself at Colorado last week. I can tell you more if you're interested.

We have happy memories of your visit. You know that we were both pretty much below par with the pressures of international visitors: next time it will be more relaxed.

Yours -

Mike ~ Bidy x x

29 October, 1980

Dr. & Mrs. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Bidy and Mike:

What a joy to hear from you! We had such a good time on Packington St. Of course, we are delighted to learn of your cigarette ban--seeing good friends use them is a little like witnessing a drunk climb into a driver's seat. I also really do wonder about ESP--I have had many strange experiences I'll share with you some day. Trouble is the phenomenon almost defies testing because it has to be (in my experience) spontaneous. Glad also zto hear about the spirits ban--I also have decided to get by on beer and wine from now on. I really don't handle the stronger stuff at all well. If you two put the pounds saved into gold or diamonds you can educate those marvellous boys with it.

Glad to hear things are looking up for Mike--that's what I hoped and prayed for exactly. Your work will blossom I am sure--and be so much more satisfying than in an oil lab in Riyadh, or wherever. Eventually the boys will go off to (what we call) private school somewhere, of course.

Your paper at Keystone was a disappointment because I had had a look personally in your study, and knew it was good stuff. It did not come across as read rather dryly by Rex, especially as most of the audience did not have the handouts in hand until after the talk--I wish I had given it for you. I believe you've got a terrific idea, and I should use the approach obviously in my Neogene studies.

All the best to you both and to the kids. We are leaving for Switzerland in two weeks (postcard on the way about this). How did I ever get into this?

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et
P.S. "et" (Betty) sends greetings, too.

IOP

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N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

7th November 1980

Dear Betty and Al,

Thanks for your ever encouraging letter which we received yesterday. What on earth are you doing in Switzerland? Reagan may be bad but this is ridiculous. It does mean that we may be able to get together in Europe before next summer - so let's keep posted on that.

We still persist with the smoking ban and thank such as yourselves who have really helped. Aside from ESP you have surely not banned all kinds of spirits!

Many thanks Al for your comments on the AASP presentation. I had feared that it would come across dryly but the mix up over the handouts must have made it a bore and a farce.

Developments with Tertiary palynological data and my colleague Richard Hubbard's wizard programmes continue to give huge excitement. We now have mean annual temperature/mean annual range of temperature curves (based on a controlled fix to Wolfe 1979) based on computer sums for each sample in our matrix. IF my extrapolations from Wolfe, and the reliability of botanical affinity from our few form-genera is reliable, then I think we are really onto something exciting. Our results from testing more than 20 randomly located samples shows more than 70% success with using the principal component data for correlation. Now we're using Chateauneuf's (1980) thesis data (a matrix of 108 taxa from 101 samples) to compare with our statistics from the Hampshire Basin. His samples extend from the Late Eocene to the Middle Oligocene and should be a useful test on our work.

Most important, we think we might have succeeded in removing many background catchment effects from such as wind and water transport processes. There was always the danger of facies noise let alone any taxonomic, preservation or geological influence. The potential of our programme expurgating the crude data must be tested in as wide a range of situations as possible.

Do both have a rewarding time in Zurich: please let us know your plans for travelling:

Yours -

Mike

Boulter

24 November, 1980

Dr. M. C. Boulter
North East London Polytechnic
Romford Road
London, E15 4LZ, U.K.

Dear Mike+

I thought I probably told you about Zürich last summer--maybe I was too embarrassed? I am giving a course on Neogene palynology, which is certainly not my strength, but it will be good experience if I get away with it, and it will provide the Quaternary chapter for my text. I'll be here until next summer. I am "Guest Professor" of palynology.

Hasten to assure that "spirits" in USA usage usually does not include wine and beer--only distilled (hence "spirit"!) beverages are spirits.

Your presentation at Keystone was annoying to me, as I knew it was interesting stuff.

Now for something you can help me with, old friend. I know nothing about principal-component analysis, or the other related mathematical procedures our colleagues are using. Where can I read up on the basic concepts, etc.? Better yet, the basic concepts as applied to paleopalynology. I need references immediately for what I am trying to do here.

We have no plans as yet for travelling, as I have so much to do here at E.T.H. I do think in terms of a swing through some of the Eastern countries just before we head home (next May)--Bulgaria, Romania, Hungary. I guess twice to UK in one year is more than one can hope for?

All the best.

Yours very truly,

Alfred Traverse
Visiting Professor

AT/et (Hello, Mike--reason your name has a ö after it is because I am trying to type on a German machine and all symbols plus y and z are in different places.)

10 December, 1980

Dr. M. C. Boulter
N.E. London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike+

Thanks for the MS--it couldn't have come at a better time! I am planning to discuss such matters with my class a week from today--ouch! It's going pretty well--I lecture in English, but the questions are usually in German.

I am using the opportunity to get some of my forthcoming text written. Today's lecture, for example, was (part of) my chapter on pollen-sedimentation.

Best for the holidays to you, Bidy, and those two marvellous little fellows.

Yours affectionately,

Alfred Traverse
Visiting Professor

AT/et

file

Happy
Christmas

- Mike. (Box 142)

December 5, (1987)

* This is the final AASP Palynology
-1, now gone to Christopher.

22 January, 1981

Dr. M. C. Boulter
North East London Polytechnic
Romford Road
London E15 4LZ England, U.K.

Dear Mike:

Your card with the "Bushman painting" (of what, for heaven's sake!-- what a conversation-piece!) was fun. I wrote an answer on a Pennsylvania geological map postcard, and gave it to Betty to mail. She is afraid she lost it before getting into the PTT-Kasten. So, I'll try again.

No-I had no misunderstanding. I just suddenly realized, as I said before, that I had not carefully read the part of your letter in which you said you might visit us during the holidays. I just put the letter in the folder for that lecture and didn't look at it thoroughly until the lecture came up on 7 January! Embarrassing! By the way, I am not recreating at all--well, practically not at all. Of course, learning German is a sort of recreation....

You'll be amused that I mentioned you again yesterday in my lecture!-- re the use of modern generic names for fossil pollen. Your '78 paper in Taxon is in the bibliography I handed out.

I now go immediately to read "Prentice". Thanks!

Love to you all,

Alfred Traverse
Visiting Professor

AT/et (let me know if you do receive the card--I would feel better-- perhaps someone else found it and mailed it--et)

IOP

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Secretary: Dr. M. C. BOULTER

N. E. London Polytechnic,

Romford Road,

London, E15 4LZ, England.

20 II 81

Dear Al & Betty —

'No Smoking' isn't going too well, I'm afraid.
Vasectomies, principal component analysis and
Jungian psychoanalysis training (Biddy),
are much better.

The children are all fine.

— Mike.

8 April, 1981

Dr. M. C. Boulter
N.E. London Polytechnic
Romford Road
London E15 4LZ England, U.K.

Dear Mike:

Just read, finally, the Feb. '81 IOP-N and realize I probably owe for '81. Check for \$6 enclosed. The Newsletter was packed with good info--marvellously informative and useful! Your review of the Durand book gave me much fun and pleasure! The info re the Storch proposal and Hughes' statement re it, etc., will go to Sydney with me. Etc. (Surely the "cladistics" piece was tongue-in-cheek? Stalinist systematics at BM?)

Also enclosed is my ballot.

Best.

Yours very truly,

Alfred Traverse
Visiting Professor

AT/et
encl: ballot, check

AL- I hope this is not too
much of a liberty. and family "problems"
clearly I'm an outsider, difficult - but it's worth trying.
may make emigration kind. remarks on COP secretary etc. the one
Thanks for your kind comments on Stalinist and the one
More tongue-in-cheek comments on Stalinist and the one
will follow in no 15 - they
grasped the nettle! Bibby et al to E.T. both
Love from (all are well) see you both
(call are well) see you both
will next - M.

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

file D.

Dr Otto T. Solbrig,
Search Committee for a Palaeobotanist,
Gray Herbarium,
Harvard University,
Cambridge,
MA 02138,

April 14th 1981

Dear Dr Solbrig,

Earlier today I had lunch with Professor W.G. Chaloner at Bedford College London, and he explained that there is a tenure track job available for application at your university. I have worked in the field of Tertiary palaeobotany and palynology for the last 15 years and write to you as chairman of the search committee with an application.

I believe there is some urgency for the vacancy to be considered by your colleagues and yourself, so I enclose two xeroxed sheets from my filing cabinet as my curriculum vitae. Please accept these together with this letter as a hasty application for the job. But please understand that this is without prejudice to the details of the proposed work: I would like to see some details of the job specification etc.

If you need to seek reference from colleagues who know me well, please write to Prof. W.G. Chaloner, Botany Department, Bedford College, Regent's Park, London NW1 and to Prof A. Traverse (on sabbatical from Pennsylvania State University until May 15th 1981) c/o Geologische Institut, Sonneggstrasse 5, ETH Zentrum, CH 8092 Zurich, Switzerland.

Yours sincerely,

M.C. Boulter

copies: W.G. Chaloner, A. Traverse.

25 April, 1981

Dr. M. C. Boulter
North East London Polytechnic
Romford Road
London E15 4LZ, England, U.K.

Dear Mike:

Just got yours of recent date re Harvard job. Actually, I thought of nominating you myself when I, as a Barghoorn student, heard of this some time ago. I did not do so, because I thought it was too junior a job for you. However, you would make sense in the position. It is the top paleobotany job in North America-- (Successor to Lesquereux, Jeffrey, Bailey, Darrah, Barghoorn). It was o.k. to use my name, of course.

We go to Turkey day after tomorrow to give a few lectures (Ankara, Izmir, Istanbul) and to see more of that marvellous country! When we get back we must set sail for USA directly. I will stay in PA a few weeks, then return here for a month to work on my paper for Sydney, inter alia.

The BM flap was not all tongue-in-cheek, was it? I used it in a recent discussion with museum friends here as an example of museum people having power to propagandize their own ideas.

All the best to you and greetings to dear Bidy!

Yours very truly,

Alfred Traverse
Visiting Professor

AT/et

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

TO: Bill Chaloner
Al Traverse

FROM: Mike Boulter
27th May 1981

You both very kindly offered me a reference for the Harvard palaeobotany job.

I heard yesterday that I am not short listed, so thanks but your support will not be requested.

Of course, we're rather disappointed, especially at not having an opportunity to be tested personally, but there are compensations and no great surprises.

Thanks for your support.

Mike

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Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

19th October 1981

Professor A. Traverse,
Pennsylvania.

Dear Al,

For the first time since his return from the other side of the world I've just seen Bill Chaloner for a chat. He explained his most recent letter to you about reporting the fossil plant nomenclature meetings in Sydney. If you would rather me not include his item in the next IOP Newsletter 16 (I start typing early November), without you seeing it first, please let me know as soon as possible. If I hear nothing from you by November 5th I will go ahead. I know that he will write a very informal description of the main palaeobotanical conclusions from your meetings, and I will be very careful when writing the Newsletter to refer to the authority of your forthcoming report in Taxon.

Our multi-variate statistical analysis work continues apace. Did I ever send you the Hubbard & Boulter ms we submitted to Nature which gives mean annual temperature and mean annual range of temperature curves for the European Palaeogene? It was rejected by that journal last month and we hope to resubmit to Science. I enclose a copy for your interest (and criticism) anyway. You see that it's a stage advanced from the earlier ms which is now accepted by Palynology. Now we're doing the same thing with the Jurassic. Wow.

You have also found this letter's envelope to contain an IOP Circular 7 which I'll announce in the next newsletter. I found an original last month, after a request from Professor Hoeg in Oslo - he still flourishes at 82 years of age and is committed to ethnobotany. I spent a week with Svein Manum earlier this autumn (fall - you may know), and was very impressed by his mentor, let alone his own palynological set up.

Biddy and the boys are all fine and send their best wishes to Betty and yourself. The nappy stage is well passed and the wonderful stage of energetic learning begins. It's all such great fun. Trains and cars and space and superman are as interesting as form-genera and pollen grains and cladistics and palaeotemperatures. More so.

My job at the polytechnic continues to deteriorate, now with three days a week teaching or rather counselling students in our non-scientific Independent Study programme. But the students are very rewarding and full of fun. And there's that Jurassic palynology data coming up for analysis very soon.

Hunt Institute for Botanical Documentation

Yours sincerely - Mike

20 October, 1981

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Just a query as I finally try to get reorganized here--
did I write yet for an IOP Circular 6 (Cladistics)? Would be
interesting for my evolution lectures here.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

new #: XXXXXX
863-3419

10 November, 1981

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Thanks for yours of 19 October. Probably Bill C. will have already heard that I would rather wait until the next Taxon arrives here (any day now) and then write a joint article. However, it will not do any real harm, if what you proposed is already a fait accompli. I have been on the phone to Dan Nicolson at the Smithsonian, Editor of Taxon, about what he thinks the effects of Sydney on paleobotany were, and I believe his ideas would be helpful.

All your news is very interesting and mostly encouraging. Too bad about the job woes--but at least you have a job. Lots of our academic folks in paleobotany are less fortunate.

I share with you vicariously the jobs with the kids--we have marvellous memories too. From 3 to 12 is surely the best time. Perhaps the world will be enough different when yours is 12 that you'll have smooth sailing then too!

I have looked at the multivariate analysis paper with profit--it will be interesting if Science takes it, and Nature didn't! If not, don't mind (they turn down 80% of all papers submitted.) There are plenty of journals in the sea, or whatever.

The "Sportophyte" was interesting. When I was a graduate student at Harvard, R.R. Gates was there, and I often talked with him. I didn't know of his connection (well, near-connection!) with M.C. Stopes until years later. What I do recall is that he had amazingly racist views on persons other than wasps--he thought blacks (as we now say) were a different species, for example!

All the best, and warm regards to the family.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

XXXXXX
863-3419

11 December, 1981

Dr. M.C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Here is what I have written re the nomenclature sessions. Actually I have made it ~~a~~ part of what I wrote for the AASP Newsletter, as I assumed that I had missed your deadline. Not my fault! The pertinent Taxon did not reach me until 1 December, instead of ca. 1 November, as promised by Dan Nicolson. On the other hand, if you want some or all of the stuff for IOP Newsletter, I suppose the fact that it is also in AASP Newsletter will matter little?

All the best to you and the family for the holidays and for 1982!

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et
cc: W.G. Chaloner
encl: MS

XXXXXX
863-3419

21 December, 1981

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Norm Frederiksen, editor of AASP Newsletter, writes that they will publish my XIII IBC article in full. So, I suppose if you cite items that fit in with whatever WGC has provided you re nomenclature, you should credit AASP Newsletter as the source.

All the best as ever.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et
cc: N. Frederiksen

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Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

29th December 1981

Dear Al and Betty,

Very many thanks for your kind Christmas greetings. Do both have a healthy and peaceful New Year.

Al: I enclose a cast-off Christmas present - I think you need it more than I do, but please pass back after ten years, unless it's worn out.

Thanks for the essay for IOP newsletter on your Australia trip. I intend to include the final part dealing with nomenclature in the next one.

The two boys are fine and very lovely - full of energy and fun. Right now, Bidy's out at work and I'm trying to baby-sit which is making this letter very difficult to write. It's all playing with trains and Lego and typewriters and things.

Very good wishes,

Mike - Bidy
T O M
ALEX

26 January, 1982

Dr. M.C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

I loved your "present", which just arrived. Funny thing, my daughter, Celia, a 2nd year student here, was around as I opened it. It reminded us all of 15 years ago when she was four. She gave me a comb for Christmas, not realizing how funny it was, and has never lived it down.

Sorry Bidy is out of work--but from your letter I deduce that she is not hanging around the house moping. Tom and Alex are a couple of great kids, and I liked being reminddd of them.

I have already warned you that AASP Newsletter will print my Australian blurb, but I see no harm in the nomenclature bit appearing twice.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

As usual, the request for help comes last.

Biddy and I have been thinking that a three or four month trip to the States may be opportune. I would like to test some of my work on the statistics and the palynofacies with the likes of yourself, Christopher and Cohen etc. Biddy would like to have a look at psychiatry (she is starting a training in Jungian analysis which will last about 5 years) and we have friends to visit in Bethesda near Washington DC and High Point North Carolina - my very best friend 'emigrated' to there two months ago.

IF I can get leave from my college for three months some time next calendar year, how best do you think I could arrange things your side of the Atlantic? You can see that palynofacies and statistical analysis of palynological data are the things I'm involved with most at present. Is there any way in which eastern USA palynologists might be able to benefit? Could I stimulate some arrangement to help pay for co-operative work?

Short of the obvious lectures and presentations etc., I really would like to see a way through using USA data through a principal components analysis procedure etc. Might that be able to form a basis for a four month trip?

The family condition is that they stay half the time in North Carolina and the other in Bethesda, or variations on that theme. Tom is nearly 5 years old and I think should go to school there. I suppose a second rate compromise would be for me to come on my ^{own} for a much shorter length of time, just talk with palynologists and my friend in North Carolina and come back here as quickly as I could. That would be sad.

I do hope that Betty and the girls are alright. WGC's oldest got married last week-end. The fathers of palaeobotany are becoming potential grandfathers of their families.

Very best wishes etc.,
Yours

Mike

Baviter

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

Dr A. Traverse,
Pennsylvania State University
State College
Pennsylvania

May 10th 1982

Dear Al,

This letter is to pass the time of day, explain what I'm doing now palynologically and to ask for more help (or rather opinion).

I hope you're happy about my abstract of your nomenclature piece for the IOP newsletter 17. I tried to preserve the academic sense at the cost of some of the chat that appeared anyway in the AASP equivalent. I suppose the reactionary response to revision of the Code really is a good thing, though I'm still not happy about the ambiguity of Article 3. And I don't think you've heard the last from N.F.H.

Biddy and the kids are fine. We had a splendid three week holiday last month, the first since the children were born. Some friends are staying in Montpellier for a year, so we drove down for a lovely sun drenched holiday with them. I took two days off from the sand and the sea to see Galtier and van Campo. They are drowning in money from their government, though the latter seemed impressed with our cheap principal components analysis work.

Did you know that for the last year and a half I've had a grant from Shell, Esso and BP to finance two research assistants work on palynofacies from the Palaeocene North Sea? We've devised yet another 'classification' of palynodebris and have semi-quantitative results from about 200 samples in three cored boreholes. Our p.c.a. work allows interesting correlation of the three sections. The companies seem to be quite pleased.

Meanwhile conventional Tertiary palynology progresses from a number of European sites, and our statistical work is entering a new phase. We feel that we have 'sorted out' quite a lot from the European Tertiary (we've still not heard from Science - latest ms enclosed*), and are venturing into the Jurassic and even the Carboniferous, using the results of other palynologists of course.

The Jurassic work is very exciting. I've tried my best to make synonymies from Muir 1964, Couper 1958, Ohlsohn, and many others. The latest set of data is from John Filatoff's thesis of western Australia data, but that's not in the computer yet. Though it's more complex than the Tertiary, because there is so little ecological control, I do feel cautiously optimistic about it all.

* I see from your letter of 10-XI-81 that you've already had a copy. (Stokes was racist and very right wing generally)

21 May, 1982

Dr. M. C. Boulter
North East London Polytechnic
Department of Biological Science
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Thanks for yours of 10 May--came on the 20th.

The deal in IOP NL is o.k. You did about what I'd have done. You may be amused (I was stunned) to learn that the ICP officers were burned that I didn't send the original report for their newsletter instead of to AASP. But, of course, it went to AASP because Norm Frederiksen asked me. Still, I was ICP official delegate (an honor only), not AASP delegate...hmm.

The comment that you have two RAs, and that Van Campo is drowning in cash tends to depress me. Here the situation is desperate. I have six graduate students and support for only two--the others are trying to find waiter jobs or whatever, or contemplating leaving me.

Your PCA work continues to fascinate and impress (intimidate?) me. Thanks for sharing more of it. As far as the trip to USA is concerned, I have a few thoughts. In the first place, your lecture will be welcome lots of places, including here. But that will, at best, only generate \$100-\$200 per shot after expenses. You should offer a seminar to 3-4 of the oil companies' palynologists (see AASP mailing list) on the method and results. Another thought would be to apply for a travel grant to NATO (science hdgtrs. were in Brussels last time somebody I knew did this). A third idea would be to contact George Hart at LSU and offer to give a "short course" (2-3 days) in his continuing series of such. Perhaps the LSU short course plus oil company seminar sessions combined? You are most welcome to visit us, of course, but it won't help with the financing of the bigger picture!

We're fine. I should probably fill you in that we have 4 "kids", two of each gender. Since I saw WGC in Australia and heard about his problems, one of our boys has been married and divorced. As far as grandchildren are concerned, I don't even hear rumors of that possibility.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

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Romford Road,
London, E15 4LZ, England.

N.O. Frederiksen
Editor, AASP newsletter
USGS Paleontology & Stratigraphy
970 National Center
Reston
Virginia 22092
USA

Al: many thanks for your
useful advice on US travel.
The attached letter to G.H.
may draw something positive.
WGC & NFH are horrified at
WAS's "libellous" AASP contribution:
no wonder he left the UK!
- Mike.

Dear Dr Frederiksen,

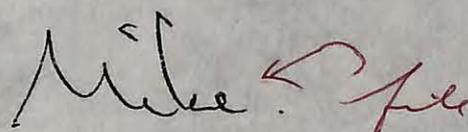
Please consider this item for inclusion in your next AASP newsletter:

Bill Sarjeant's confusion about the distinction of nomenclature and taxonomy (AASP newsletter 15, 2, April 1982, page 6) cannot be blamed on the inaccessibility of Taxon. The issues involved are discussed by J.M. Schopf in Tschudy & Scott, 1969, Aspects of Palynology, chapter 4, and more recently by him in IOP newsletters 7 (pages 4 - 5 and 24 - 26) and 8 (pages 11 - 14).

If Bill subscribed to IOP newsletter he would have seen more recent items still, written by the palynological representatives on the ICBN committees "acquainting us other palynologists about the proposed changes, and seeking our opinions" for the Sydney 1982 meetings.

Back copies of IOP newsletters only cost US\$2.00 each and the current annual subscription to IOP is \$6.00 - much less than for Taxon.

Many thanks,
Yours sincerely,



Mike Boulter

ps I hope to see you in Dublin this autumn when we can have a chat about newsletter production etc.

IOP

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N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

Dr G.F. Hart
644 Leeward Drive
Baton Rouge
Louisiana 70808
USA

June 7th 1982

Dear George,

In recent letters to Al Traverse I've been asking help for ideas on how to finance a trip to the US which I propose to make in the first months of next year. The objectives of this are partly IOP business, partly palynology research discussions and partly the hope of lecturing on my Tertiary palynology statistics work (see attached ms).

Al wrote a few days ago saying that one thing I might try is to approach yourself with a view to offering a "short course in (your) continuing series of such". So I write now to give you some details of the kind of thing I am able to offer. I hope that the enclosed papers can give you some of the background to some kind of presentation I could give over 2-3 days, on Tertiary palynology.

Since my current work here is very much concerned with analysing palynological data by techniques of principal components analysis I am planning to offer seminars to some oil companies in the States on the methods and results expressed in the enclosed ms on 'Reconstructions of Tertiary Environment and Climate from Palynological Evidence'. Since it is so topical with me here, this subject is clearly a favourite for such a seminar series. Also, my work with IGCP 124 'North West European Tertiary Basins' - see the other very first draft ms enclosed - has particular topicality.

So this letter is to sew seeds of the idea in your plans. If there is any way in which you can see that such a short course would fit your programme and help pay some of my travelling and living expenses in the States next winter, do please write with some suggestions.

Very best wishes,

Mike Boulter ← Mike

Mike Boulter

PUBLICATIONS

- 1968 - A species of compressed lycopod sporophyll from the Upper Coal Measures of Somerset. Palaeontology 11, 445-457.
- 1969 - Cryptomeria - a significant component of the European Tertiary. Palaeontol. Abh. B 3, 279-288.
- 1970 - Lignified guard cell thickenings in the leaves of some modern and fossil species of Taxodiaceae. Biol. J. Linn. Soc. 2, 41-46.
- & Chaloner, W.G. Neogene fossil plants from Derbyshire, England. Rev. Palaeobotan. Palynol. 10, 61-78.
- 1971 - A palynological study of two of the Neogene plant beds in Derbyshire. Bull. Br. Mus. nat. Hist. Geol. 19, 359-410.
- Fine details of some fossil and Recent conifer leaf cuticles. In: Scanning Electron Microscopy. Ed. V.H. Heywood. Academic Press, 211-236.
- A survey of the Neogene flora from two Derbyshire pocket deposits. Mercian Geol. 4, 45-62.
- & Ford, T.D., Ijtaba, M. & Walsh, P.T. The Brassington Formation: a newly recognised Tertiary formation. Nature 231, 134-136.
- 1972 - with Walsh, P.T., Ijtaba, M. & Urbani, D. Preservation of Neogene 'pocket deposits' of the southern Pennines and their bearing on the evolution of upland Britain. J. Geol. Soc., 128, 519-559.
- 1973 - No learning for its own sake. Times Higher Educ. Supp. 101, 13.
- 1974 - An enigmatic moss from the British Tertiary. J. Bryol. 8, 65-68.
- The Neogene of the British Isles. Mem. Bur. Res. Geol. Min. 78, 487-488.
- & Alvin, K. A controlled method of comparative study for Taxodiaceous leaf cuticles. Bot. J. Linn. Soc. 69, 253-286.
- 1975 - Discovery in Evolution. Higher Education Review 7, 81-83.
- 1976 - Fossil plants. Tree of Knowledge 17, 348-352.
- A British view of the Rhenish browncoal. Cour. Forsch. Inst. Senckenberg. 17, 76.
- A revision of the geology of the St. Agnes outlier, Cornwall. Proc. Ussher Soc., 3, 286-287.
- 1977 - & Wilkinson, G.C. A method of group identification for some Tertiary pollen. Palaeontology, 20, 559-580.
- Does Geology degree teaching need a new approach? Geology Teaching 2 142-147.
- & Mitchell, I. Middle Pleistocene (Gortian) deposits from Benburb, Northern Ireland. Irish Nat. J. 19, 1-3.
- 1978 - with Curry, D. et al. A correlation of the Tertiary rocks of the British Isles. Sp. Rep. Geol. Soc. Lond. 1-83.
- 1979 - Taxonomy and nomenclature of fossil pollen from the Tertiary. Taxon 28, 337-344.
- & Craig, D.L. A Middle Oligocene pollen and spore assemblage from the Bristol Channel. Rev. Palaeobotan. Palynol. 28, 259-272.
- A proposal to emend Article 3.2 of I.C.B.N. Taxon 28, 598-600.
- 1980 - The Irish Tertiary in a European context. J. Earth Sci. R. Dubl. Soc. 3, 1-12.
- with Wilkinson, G.C. & Bazley, R.A.B. The geology and palynology of the Oligocene Lough Neagh clays, Northern Ireland. J. Geol. Soc. Lond. 137, 65-75.
- & Wilkinson, G.C. Oligocene pollen and spores from the western part of the British Isles. Palaeontographica B, 175, 27-83.
- 1981 - with Collinson, M.E. & Fowler, K. Floristic changes indicate a cooling climate in the Eocene of southern England. Nature 291, 315-317.
- (editor) Palaeobotanical extracts from 'The Sportophyte'. IOP Circular 7, 20pp.
- 1982 - & Hubbard, R.N.L.B. Objective palaeoecological and biostratigraphic interpretation of Tertiary palynological data by multivariate statistical analysis. Palynology 6, 55-68.
- in: Freshney, E.C. et al., A Tertiary basin at Dutson, near Launceston, Cornwall, England. Proc. Geol. Ass. 93, 395-402.
- 1983 - with Hubbard, R.N.L.B. Reconstruction of Palaeogene climate from palynological evidence. Nature 301, 147-150
- in press - Palaeobotanical evidence for land surface temperature in the European Palaeogene. In: Fossils and Climate, Ed. Brenchley, P., J. Wiley.
- The study of pollen and spores in the Hampshire Basin Project. IGS Report Series.

MICHAEL CHARLES BOULTER

22nd November 1942; married 1975; first son 1977; second son 1979

BSc lower 2nd Botany Chemistry & Geology: University College London 1964
PhD "An Upper Tertiary Flora from Derbyshire" 1971: part-time internal, U.C.L.

1964-5 part-time lecturer in biology at four London technical colleges
1965-7 assistant lecturer in biology, West Ham College of Technology
1967-70 lecturer in biology, West Ham College of Technology
1970-4 senior lecturer in science, North East London Polytechnic (NELP)
1974- principal lecturer, NELP.

1983 salary: £16,000 + part-time fees

MAJOR COMPLETED RESPONSIBILITIES

1972 Establishment of electron microscope suite, NELP
1972-8 Tutor and examiner in Geology, Open University
1972-9 External staff examiner in Botany, University of London
1972-9 Circular Reporter, Palaeontological Association Newsletter
1972-9 Member of the Executive Committee, Palaeontological Association
1974-6 Member of group developing Independent Study, NELP
1975-80 Supervisor to three research students (one PhD), NELP
1978-82 International Geological Correlation Programme Project 124 participant
1978-82 Part-time lecturer and examiner in Palynology to BSc Geology and MSc
Petroleum Geology students, Imperial College London
1980 International Palynological Conference, Cambridge, Excursion A1 organiser

CURRENT NELP RESPONSIBILITIES

Tutor in the School for Independent Study; teacher in palaeoecology, stratigraphy
and botany
Head of Palynology Research Unit
Leader of Shell/Esso/BP research project (1980-3) on the palynofacies of the
Forties Field Paleocene: two research assistants
Statistical analysis of published Jurassic palynological data: one research assistant
Editor, International Newsletter for Independent Study

CURRENT EXTERNAL RESPONSIBILITIES

International Organization of Palaeobotany (IOP): secretary and editor (1977-)
The Royal Society: British National Committee for Biology, Botany subcommittee
Institute of Geological Sciences: participant in Hampshire Basin project

OVERSEAS ACTIVITIES additional to IOP

Short visits to the USA and Africa on research visits and advisory work. Numerous
working visits to Europe and invited lectures in the USA and Europe.

RESEARCH GRANTS

1972-7	Natural Environment Research Council	£12,000
1977	The Royal Society (microscope)	8,000
1974-9	Various travel grants	4,000
1980-1	Institute of Geological Sciences	3,000
1981-2	Shell/Esso/BP Palynofacies project	27,000

RESEARCH IN PROGRESS

Palynodebris and facies in the Forties Field Paleogene; synonymy and statistical
analysis of Jurassic pollen and spore taxa; the biogeography of Aquilapollenites
in the Tertiary; Tertiary palynology in general and DSDP Leg 38 in particular,
statistical analysis and biogeography of Lower Carboniferous miospores

FEBRUARY 1983

Ad - please excuse my presumption in nominating you automatically, but I doubt that you will be called upon to write anything.

NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ

01-555 0811
XXXXXX

590 7722 x4210

Dr P. Friend,
Department of Earth Sciences,
Sedgwick Museum,
Downing Street,
Cambridge.

file Boulter

14th February 1983

Dear Dr Friend,

This is my application for the Lectureship in Palaeontology or Stratigraphy that I saw advertised in a recent copy of Nature. There are 10 copies of this letter, a brief curriculum vitae and a list of publications.

As part of my application I would like to stress two points:

1. As a result of recent and impending retirements there will only be one or two active palynologists in service in British Universities. Even some existing post-graduate MSc courses may close or lose momentum. Over the last 20 years the British universities have educated a significant proportion of the world's experts in this commercially important field. There is no sign that the demand for palynologists will slacken if the present recession ends. I would welcome the opportunity to establish something like a British School of Palynology to serve as a centre of excellence in postgraduate training and research to link with the demands of the oil industry.
2. You can see from my c.v. that I am involved at this college with Independent Study - a structure within which students plan their own learning programmes and take responsibility for them. I would welcome the opportunity to initiate such structures in your own institution - at the other end of the higher education spectrum from my own.

I am sending copies of my application to three referees:

Mr J. Stephenson, Head of the School for Independent Study, N.E. London Polytechnic, Holbrook Road, London E15 3EA.

Prof W.G. Chaloner FRS, Head of the Botany Department, Bedford College, Regent's Park, London NW1.

Prof A. Traverse, Department of Geology, Deike 529, University Park, State College, University of Pennsylvania, Pennsylvania 16802, USA.

Yours sincerely,

M.C. Boulter

*Family is fine & healthy - lovely!
We often think of you both*

-
28 February, 1983

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Wouldn't that be great if you could catch on in Cambridge!
Good luck!

Best to B. and the boys.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

file

DEPARTMENT OF EARTH SCIENCES
UNIVERSITY OF CAMBRIDGE

TELEPHONE (0223) 355463
Telegraphic address: Earthsciences Cambridge.
Telex No: 81240 CAMSPL G

DOWNING STREET
CAMBRIDGE
CB2 3EQ

15 March, 1983

Professor A. Traverse
Department of Geology
Deike 529
University Park
State College
University of Pennsylvania 16802
U.S.A.

Dear Professor Traverse,

Dr. M.C. Boulter is being considered for possible appointment to a University Lectureship in Stratigraphy or Palaeontology in this Department. He has given your name as a referee and we should be most grateful if you could let us have your opinion of his research achievement and further potential, and of his ability as a teacher.

We are hoping to make an early appointment and it would help us considerably if it were feasible to have a reply as soon as possible.

Yours sincerely,



M.I. Johnston (Miss)
Administrator

One reason why I've done nothing with the Neogene, is, as I say, due to this lack of high quality data. Another is that we've been working quite hard on such analyses from the Jurassic and the Lower Carboniferous. The results are just beginning to come through, and we're very encouraged.

For the Jurassic we've used John Filatoff's Perth Basin work (VERY good palynology) which gives about 140 taxa from more than 200 samples. Then we've done a big and contemplative synonymy job on U.Triassic - L. Cretaceous theses from Europe. We have data from 600 samples based on % frequency of 153 species (there were 470! before we started). And from the Euramerian Lower Carboniferous we have about 150 samples with 90 species. The very many different sections do give curves which suggest useful and meaningful correlations.

So what about the Ultimogene?

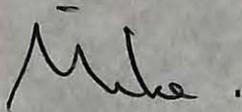
Thank you very much, by the way, for helping with the Cambridge job. I still feel quite an outsider, but it's important to keep trying. Biddy's afraid of leaving London though. This is mainly because she's just started a five year Jungian psychoanalysis training here that's very intensive analytically - three times a week for five years and lots of lectures etc. So one or other of us would have to commute.

The two boys are growing up so very quickly. Their schools are wonderful here in central London, and though they miss greenery in the summer there really are lots of very good facilities, both social and cognitive. Tom, by the way, goes to a Church of England school - Saint Mary's - that is really very impressive. I really do think that a hymn and a prayer every morning is a very good thing.

I do so hope that Betty and yourself are in good health and spirit, and that your girls are fine. How's that clutch on your motor car?

Have a good summer, both.

Yours sincerely,



NORTH EAST LONDON POLYTECHNIC

Romford Road
London E15 4LZ
01-555 0811

Prof A. Traverse
435 Deike Building
Department of Geosciences
Pennsylvania State University
PA 16802

18th April 1983

Dear Al,

Thank you for yours of the 1st ultimo and 9th instant. Though not an ultraist on language, and though I hope never to arrange an ultimogeniture (as a new father I find that idea quite repugnant - perhaps I am an ultraist on some issues) I do feel that your informal stratigraphic unit rings of an ulterior ultimatum. (On the same page I see that ultramontane means "1. Situated south of the Alps; Italian; favourable to the absolute authority of the Pope in matters of faith and discipline,")

Seriously though, your fine Alcheringa 6 gives a good reason for writing. It's one of those papers which has interest in every line, and I'm sure that most Tertiary palynologists will find it useful for many years. It stimulates many things in my mind, for instance:

1. what does "100% of extant genera" mean? Is it: all Ultimogene genera are alive today, with no extinctions? Or is it: all modern genera were alive in the Ultimogene, and there have been extinctions?

In any case, if Muller and yourself are right about whatever 100% means, why do you quote Benda's (German) form-generic taxa in your Fig. 9? Surely they are examples of things that cannot be put into modern genera, either through ignorance or because they are pollen from extinct plants. Doesn't that very problem challenge the 100% idea?

2. Your quote from Heusser & Shackleton 1979 is wonderful. It is that which really stimulates this letter:

Already you know a little of what Hubbard and I are doing with Principal Components Analysis of high quality % frequency data. The philosophy of our approach is really two-fold. First, it is surely more precise to take complete assemblages in full detail rather than restricted? ranges of certain taxa (both for correlation and climate work). Secondly, we agree with Heusser and Shackleton that the land plant record, as represented in the fossils by pollen and spores, must be a most sensitive account of climate and its change. That's why I'm so excited about our curves in the Nature ms enclosed - the peaks fit in very precisely with Nick Shackleton's own oxygen isotope work: so they should

Anyway, all this is to say that what I've been hoping to do for some time is a similar thing on the Neogene to that which we've done on the Palaeogene. But where is the high quality % frequency data? Krefeld and Hannover are the obvious places, but they don't have complete % data of all Tertiary taxa. I think the same goes for US workers too. Do you have any ideas of possible sources of existing % data from the Neogene?

Boulter, pg. 2

When (if?) complete, my Black Sea core work will cry out to be subjected to your PC- meter , and I hope you're still interested when that happens!

I'd be interested one day in seeing your U. Triassic-L. Cretaceous results, as they impinge on our work here.

I wrote you a bang-up letter for Cambridge and am always willing to help. My letter (auf Deutsch) to Heidelberg authorities apparently was the key to getting Pfefferkorn the Ruf for the professorship there. But Hermann is having great trouble deciding what to do, because U of P is showing all sorts of chips to the center of the table to match and raise Heidelberg.

Your family news was great fun. That Mike Boulter joins Ronald Reagan in supporting school prayer is one of those delightful little ironies that abound in life.

The old Dodge never has shown the slightest harm from being slammed into reverse at 40 mph that day on Tussey Ridge. Wish you et fam. could return to see the country hereabouts.

Biddy's Jung training could send her to Zürich, nicht wahr?

I go to Maine for a little field work (Silurian) this Friday. Otherwise it'll be a catch-up summer for me. Largely as a bachelor.' When I'm here, Betty will be with her parents, who need her.

Best as always.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

P.S. Thanks, ofocourse, for the reprints, which I'll share with Choi when he's too far down the road to work up another program. Who's Hubbard?

14 June, 1983

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Yours of 18 April was great fun. Only the end of Spring Term, multiple proposal-writing, etc., can account for my long silence.

I'm glad you found my Alceringa paper interesting. It was really my Neogene course at ETH in capsule form. Figured I should have something to show for the 6-mos. Arbeit! To our astonishment, the 300 reprints were almost immediately gobbled up, and we have been running on our xeroxes for months.

To rephrase the 100% extant genera bit: the evidence seems to be that no pollen records from early Pliocene, say, represent extinct genera. Conversely, all modern pollen records (ordinarily only recognizable to genera!) are of genera that were abroad in late Miocene time. Doubtless there are some minor exceptions. (I'm writing in the car, sans bibliotheque, but there's a genus of Theaceae in the Southeast that has become extinct in historic time.) However, the point is that a pollen grain in the early Pliocene that looks like an Ulmus grain, is an Ulmus. In the Eocene one can't be so sure.

Re Benda's form-genera: one must quote a person absolutely faithfully. Potonié sold all the Germans and most everybody else that all fossil pollen, ohne Ausnahme!, must be put in form-genera. I think it's stupid. However, those fagaceous jobbies are difficult.

Your third paragraph gave me a Pavlovian sort of jolt. One of my current students, Duck Choi (A Korean, not a dish in a Cantonese restaurant) has insisted on following Dr. Borter (his pronunciation) into multivariate analysis. He got a manual from the University of London computer wizards and went at it. Two months later, my gut instinct was that the result was baloney, but I got another paleontologist who understands these matters to corroborate my opinion, and Mr. Choi has agreed to suppress the chapter. However, I think your PC approach is very good, and I agree that the land-plant record should do a great deal to check--corroborate O-isotope data.

However, the sort of Neogene data you want will be hard to come by. Woillard's Grande Pile stuff is good for Pleistocene. There are Pliocene studies here and there in the literature, and Miocene, too.

8 April, 1983

Miss M.I. Johnston, Administrator
Department of Earth Sciences
Cambridge University
Downing St.
Cambridge CB2 3EQ, U.K.

File

Dear Miss Johnston:

This is ~~is~~ response to yours of 15 March re Dr. M.C. Boulter. It is good to know that he is under consideration for a position in your department. I have known "Mike" Boulter both personally and professionally for some time. His research is characterized by willingness to venture into uncharted waters--for example, his use long before others considered it, of computer-based multivariate analysis on his Cenozoic palynological data. He has a thorough knowledge of our mutual field and will undoubtedly carry on very significant research in the future if he has the chances that Cambridge would afford. His teaching ability is known to me only from hearing him lecture in other connections, but I suspect it is excellent from what I've heard.

On the international scene Mike is best known for his tireless efforts on behalf of the "IOP" (Int. Org. for Palaeobotany). Under his guidance the Newsletter of this organization has become really excellent--and it's clearly a one-man show. American palynologists I know who went on the Cretaceous-Cenozoic field trip Dr. Boulter led in 1980 in southern England are still singing the praises of the organizational ability he showed in that connection, and for the scientific quality of the program.

I should also add that Dr. Boulter has a charming family. Cambridge would be lucky to get them.

I much regret that there has been so much delay since you wrote--I have been out of town. Best wishes.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

IOP

INTERNATIONAL ORGANIZATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES
-SECTION FOR PALAEOBOTANY
President: Prof. W.G. CHALONER, UK
Vice Presidents: Prof. E. BOUREAU, FRANCE
Dr. S. ARCHANGELSKY, ARGENTINA
Dr. S.V. MEYEN, USSR

Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

Prof A. Traverse
College of Earth & Mineral Sciences,
Deike Building
Pennsylvania State University
University Park
Pennsylvania 16802
USA

27th February 1984

Dear Al,

I heard from Jim Canright the other day that Elso Barghoorn died earlier this year. Will you please write an obituary for the IOP Newsletter 24?

For such an important contributor to palaeobotany I have in mind that at least a page of IOP newsletter space be used. Also, it occurs to me that you may have been asked to write such a piece for other sources; if so, and you don't mind being duplicated, perhaps I can write to their editor or whoever and ask permission for copyright to be waived if IOP acknowledges their source. Anyway, please decide the easiest course.

It really would be good to see you again, hopefully in Canada later this year. But I have major problems with money and funding: the Royal Society have given me nothing after the application I made late last year, and my own college is busy making 112 academic staff redundant by September 1984, so there's no money there either. The family can't stand a jolt of £1,000 from our funds, so I'm trying other sources - I only hope I'm not going to be too late.

Work is coming along very nicely. Hubbard and I are spending a great deal of time doing PCA and Cluster Analysis on: European Triassic and Jurassic, British Coal Measures, Forties Field (North Sea Palaeocene) palynodebris etc. And with Svein Manum I'm trying to get into DSDP Norwegian Sea palynology of the marine realm even more. (Can I use you as a reference please for this latter project, with Manum, to apply to NATO for one of their travel grants? - London -Oslo and to the DSDP store in the Scripps Institution.) If I go to Alberta I'll give 5 lectures: Forties Field palynodebris, Jurassic PCA, Tertiary provinciality, Carboniferous Climatic Change and for IOP something on 'Plant Genera in the Tertiary'.

The two boys are growing into energetic anarchists, though others say they are controlled by their sargeant-major father and psychotherapeutic mother. That's not a bad combination, I suppose. By the way, Bidy is going through with her psychotherapy training - analysis three times a week for the last 18 months and the next 3 years (with a very well-known Jungian), seminars, patients, supervision, groups etc. Good stuff - and with a sense of humour I think we can take it!

Hunt Institute for Botanical Documentation
Yours, a love to Betty - Mike

21 March, 1984

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Yours of 27 February came just a few days before Andy Knoll phoned with the news that he and Bruce Tiffney have already sent you a memorial for Elso. It was Andy's opinion that they have taken care of the matter, which is o.k. by me. I am writing a little thing for the AASP Newsletter. As Andy says, perhaps it's good for there to be some different perspectives--my personal recollections of Elso are (ye gods) up to 37 years old!

I have problems re the Canadian meeting, too--rather different from yours. Penn State has gone on a new calendar this year. "Fall" Semester begins on 19 AUGUST. It is very difficult to be gone at the very beginning of the academic year. Hence, I shall have to fly out there, do my thing (s?) and fly back, within a frame of 2-3 days. I had planned to drive out with several graduate students, etc., but that's now out. I agree it'll be fun to see you if you make it.

Your research seems to be going great guns. Certainly do use my name as a reference anywhere you please.

Thanks much for the family news. We remember them all fondly. If Bidy really gets deeply into Jung you'll end up in Zürich yet.

Best wishes to all.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

FROM: MIKE BOULTER

TO: JOHN RICHARDSON

October 1982

PALYNOLOGY IN LONDON

This is a summary of what I believe we should begin to fight for. It is based on current rumours that Sheffield's MSC in Micropalaeontology will close down in the next few years and on the assumption that senior academic palynologists in other British universities will retire in this decade.

I suspect there is no rush. At present the University of London is in a mess with its Geology Departments and the oil industry isn't spending money on outside research. But there is reason to believe that the oil industry will continue to recruit palynologists. Where will they come from if Sheffield closes? It must be London, for here is the established reputation of UCL, the student demand at BSc, MSc and PhD levels, the expertise (yourself, Bill Chaloner and me), the oil companies and their research labs.

A SCHOOL OF PALYNOLOGY

We need to seek money from the oil industry to establish:

- 1, a new senior university post for a pollen and spore person
- 2, a new university post for a dinoflagellate person
- 3, a new university post for a technical assistant
- 4, a set of good quality student microscopes
- 5, suitable laboratory facilities with HF equipment etc.

Of course, the details would depend on what is already present in the host institution. UCL is my favourite, of course, because they have a very well-established MSc tradition, and it's my old college. Could we persuade them to develop palynology? Who do we talk to? Who will replace Tom Barnard?

SERVICES OF THE SCHOOL

1. teaching A single school could rationalise undergraduate courses (yours at King's, mine at Imperial and perhaps even link with Bill Chaloner's palaeobotany at Bedford). MSc teaching could replace Sheffield's course and be increased on UCL's present postgraduate course to give projects etc. PhD work could become more closely incorporated with these functions; at present that is all patchy and isolated, if it exists at all.
2. research Within a single SCHOOL, with teaching and industrial servicing - which we would clearly offer our sponsors - the integrated and applied atmosphere would be very inspiring, especially with geology and botany going on down the corridor. That's why this shouldn't happen at North East London Polytechnic.
3. industry I am in favour and reasonably experienced with greater liaison between academia and the oil companies. For instance, I believe that the companies should be involved with planning a students' programme of study and research. There should be more placements of students in industry and much more cooperation. I think that's how we should try and get money to support the whole thing.
4. course design You know I helped develop "Independent Study" at NELP. Some of those ideas need to be considered for palynology training, especially to help contact with industry. Students can then liaise with industry to plan their own learning, both theoretical and practical.

OTHER 1984 ACTIVITIES

ARTICLES IN PREPARATION OR COMPLETED

1. Palynofacies of the Palaeocene Forties Field (for Sedimentology)

This is a 40 page ms with 6 plates and 8 tables. It is already written and is now being approved by Shell, Esso and BP, the project's sponsors. Percentage frequency counts of 36 palynodebris types have been made from 455 samples. After principal components analysis two types of palynodebris have been shown to have sedimentological significance and these have been used to help reconstruct the depositional events in the Palaeocene sediments.

2. Tertiary Monocotyledons from Aquatic Environments (for M.E.J. Chandler Festschrift)

A 10 page ms has been invited and is planned and 6 figures are already drawn. The occurrence of monocotyledon pollen in the European Tertiary is to be reviewed with new data from sections in Devonshire, Hampshire and northern France. This will be compared to records in the southern hemisphere where there are some strange similarities, and ideas of vicariance and migration will be discussed.

3. Oligocene and Miocene Plant Provinces in Northern Europe

This will present new data from North Sea wells and from DSDP Leg 38 cores in the Norwegian-Greenland Sea. The changing distributions of important migrating groups will be presented on maps recording the early opening of the North Atlantic.

4. Climatic Change During the Lower Carboniferous in Euramerica (for Palaeo 3)

- with C. van der Zwan & R. Hubbard

This 22 page ms with 4 figures and 4 tables is already written and is awaiting permission to publish from Shell UK Expro. The principal components analysis of palynological data relates groups of spores to climate sensitive rocks such as coals and evaporites. Four climatic zones are recognised.

5. A Revision of the Geology of Tertiary Outliers in W. Cornwall (for J. Geol. Soc.)

- with P.T. Walsh et al.

This is only partly written and will present palynological evidence for a Neogene age of the sediments at Saint Agnes.

INVITED LECTURES

1. British Micropalaeontological Society (I am now chairman of the Palynology Group)

Southampton, May. "Range Charts: the Curse of Micropalaeontology?"

Cambridge, December. "A Review of Pollen and Spore Biostratigraphy in the British Tertiary".

2. University of Oslo, May.

A course of ten lectures on "Palynofacies" and "Tertiary Pollen and Spores from the Norwegian Sea".

3. International Organisation of Palaeobotany, Edmonton, Canada, August.

"Plant Genera in the Tertiary".

4. 6th International Palynological Congress, Calgary, Canada, August.

"Oligocene and Miocene Plant Provinces in Northern Europe" and 3 uninvited talks.

5. Tertiary Research Group, Derbyshire, June.

Leader of a Field Meeting to the Brassington Formation.

LATEST STATISTICAL WORK

The National Coal Board has recently provided percentage frequency counts of the spore work of Smith and Butterworth, comprising 227 species from 283 samples from the British Coal Measures. All the data is now in the computer and is ready to be run.

M.C. BOULTER, May 12th 1984

PUBLICATIONS

- 1968 - A species of compressed lycopod sporophyll from the Upper Coal Measures of Somerset. Palaeontology 11, 445-457.
- 1969 - Cryptomeria - a significant component of the European Tertiary. Palaeontol. Abh. B 3, 279-288.
- 1970 - Lignified guard cell thickenings in the leaves of some modern and fossil species of Taxodiaceae. Biol. J. Linn. Soc. 2, 41-46.
- & Chaloner, W.G. Neogene fossil plants from Derbyshire, England. Rev. Palaeobotan. Palynol. 10, 61-78.
- 1971 - A palynological study of two of the Neogene plant beds in Derbyshire. Bull. Br. Mus. nat. Hist. Geol. 19, 359-410.
- Fine details of some fossil and Recent conifer leaf cuticles. In: Scanning Electron Microscopy. Ed. V.H. Heywood. Academic Press, 211-236.
- A survey of the Neogene flora from two Derbyshire pocket deposits. Mercian Geol. 4, 45-62.
- & Ford, T.D., Ijtaba, M. & Walsh, P.T. The Brassington Formation: a newly recognised Tertiary formation. Nature 231, 134-136.
- 1972 - with Walsh, P.T., Ijtaba, M. & Urbani, D. Preservation of Neogene 'pocket deposits of the southern Pennines and their bearing on the evolution of upland Britain. J. Geol. Soc., 128, 519-559.
- 1973 - No learning for its own sake. Times Higher Educ. Supp. 101, 13.
- 1974 - An enigmatic moss from the British Tertiary. J. Bryol. 8, 65-68.
- The Neogene of the British Isles. Mem. Bur. Res. Geol. Min. 78, 487-488.
- & Alvin, K. A controlled method of comparative study for Taxodiaceous leaf cuticles. Bot. J. Linn. Soc. 69, 253-286.
- 1975 - Discovery in Evolution. Higher Education Review 7, 81-83.
- 1976 - Fossil plants. Tree of Knowledge 17, 348-352.
- A British view of the Rhenish browncoal. Cour. Forsch Inst. Senckenberg. 17, 76.
- A revision of the geology of the St. Agnes outlier, Cornwall. Proc. Ussher Soc., 3, 286-287.
- 1977 - & Wilkinson, G.C. A method of group identification for some Tertiary pollen. Palaeontology, 20, 559-580.
- Does Geology degree teaching need a new approach? Geology Teaching 2, 142-147.
- & Mitchell, I. Middle Pleistocene (Gortian) deposits from Benburb, Northern Ireland. Irish Nat. J. 19, 1-3.
- 1978 - with Curry, D. et al. A correlation of the Tertiary rocks of the British Isles. Sp. Rep. Geol. Soc. Lond. 1-83.
- 1979 - Taxonomy and nomenclature of fossil pollen from the Tertiary. Taxon 28, 337-344.
- & Craig, D.L. A Middle Oligocene pollen and spore assemblage from the Bristol Channel. Rev. Palaeobotan. Palynol. 28, 259-272.
- A proposal to emend Article 3.2 of I.C.B.N. Taxon 28, 598-600.
- 1980 - The Irish Tertiary in a European context. J. Earth Sci. R. Dubl. Soc. 3, 1-12.
- with Wilkinson, G.C. & Bazley, R.A.B. The geology and palynology of the Oligocene Lough Neagh clays, Northern Ireland. J. Geol. Soc. Lond. 137, 65-75.
- & Wilkinson, G.C. Oligocene pollen and spores from the western part of the British Isles. Palaeontographica B, 175, 27-83.
- 1981 - with Collinson, M.E. & Fowler, K. Floristic changes indicate a cooling climate in the Eocene of southern England. Nature 291, 315-317.
- (editor) Palaeobotanical extracts from 'The Sportophyte'. IOP Circular 7, 20pp.
- 1982 - & Hubbard, R.N.L.B. Objective palaeoecological and biostratigraphic interpretation of Tertiary palynological data by multivariate statistical analysis. Palynology 6, 55-68.
- in: Freshney, E.C. et al., A Tertiary basin at Dutson, near Launceston, Cornwall, England. Proc. Geol. Ass. 93, 395-402.
- 1983 - with Hubbard, R.N.L.B. Reconstruction of Palaeogene climate from palynological evidence. Nature 301, 147-150
- in press - Palaeobotanical evidence for land surface temperature in the European Palaeogene. In: Fossils and Climate, Ed. Brenchley, P., J. Wiley.
- The study of pollen and spores in the Hampshire Basin Project. IGS Report Series.

MICHAEL CHARLES BOULTER

22nd November 1942; married 1975; first son 1977; second son 1979

BSc lower 2nd Botany Chemistry & Geology: University College London 1964
PhD "An Upper Tertiary Flora from Derbyshire" 1971: part-time internal, U.C.L.

1964-5 part-time lecturer in biology at four London technical colleges
1965-7 assistant lecturer in biology, West Ham College of Technology
1967-70 lecturer in biology, West Ham College of Technology
1970-4 senior lecturer in science, North East London Polytechnic (NELP)
1974- principal lecturer, NELP.

1984 salary: £15,727

MAJOR COMPLETED RESPONSIBILITIES

1972 Establishment of electron microscope suite, NELP
1972-8 Tutor and examiner in Geology, Open University
1972-9 External staff examiner in Botany, University of London
1972-9 Circular Reporter, Palaeontological Association Newsletter
1972-9 Member of the Executive Committee, Palaeontological Association
1974-6 Member of group developing Independent Study, NELP
1975-80 Supervisor to three research students (one PhD), NELP
1978-82 International Geological Correlation Programme Project 124 participant
1978-82 Part-time lecturer and examiner in Palynology to BSc Geology and MSc
Petroleum Geology students, Imperial College London
1980 International Palynological Conference, Cambridge, Excursion A1 organiser

CURRENT NELP RESPONSIBILITIES

Tutor in the School for Independent Study; teacher in palaeoecology, stratigraphy
and botany
Head of Palynology Research Unit
Leader of Shell/Esso/BP research project (1980-3) on the palynofacies of the
Forties Field Paleocene: two research assistants
Statistical analysis of published Jurassic palynological data: one research assistant
Editor, International Newsletter for Independent Study

CURRENT EXTERNAL RESPONSIBILITIES

International Organization of Palaeobotany (IOP): secretary and editor (1977-)
The Royal Society: British National Committee for Biology, Botany subcommittee
Institute of Geological Sciences: participant in Hampshire Basin project

OVERSEAS ACTIVITIES additional to IOP

Short visits to the USA and Africa on research visits and advisory work. Numerous
working visits to Europe and invited lectures in the USA and Europe.

RESEARCH GRANTS

1972-7	Natural Environment Research Council	£12,000
1977	The Royal Society (microscope)	8,000
1974-9	Various travel grants	4,000
1980-1	Institute of Geological Sciences	3,000
1981-2	Shell/Esso/BP Palynofacies project	27,000

RESEARCH IN PROGRESS

Palynodebris and facies in the Forties Field Paleogene; synonymy and statistical
analysis of Jurassic pollen and spore taxa; the biogeography of Aquilapollenites
in the Tertiary; Tertiary palynology in general and DSDP Leg 38 in particular,
statistical analysis and biogeography of Lower Carboniferous miospores

JANUARY 1984

NORTH EAST LONDON POLYTECHNIC

Faculty of Science
Palynology Research Unit

Romford Road
London E15 4LZ
01-590 7722

Professor M.G. Audley Charles,
Department of Geology,
University College London,
Gower Street,
WC1E 6BT

May 12th 1984

"New Blood" Lectureship in Palynology and Palynofacies

Dear Professor Audley Charles,

Together with the four sheets enclosed this letter is my application for the "New Blood" post in your department. As well as my curriculum vitae there is a copy of a note I wrote to Dr John Richardson in 1982. You may recall that about a year ago you spoke with him about our ideas for palynology in London. They were based on discussions between John and myself and this note served us as an early summary. I still hold these convictions and would like the note to be considered as part of my application.

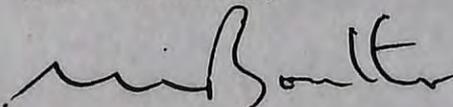
At 41 years of age my blood is more Mature than New. If the ideas for palynology in London that I have are to be attempted I think that experience is essential. The kind of course design I have in mind needs careful planning and negotiation. A proven research record does help when trying to obtain funds of the kind I describe. And teaching palynology is not easy: the newest English language textbook was around in my UCL student days.

Earlier this month I submitted the Final Report of my Palynofacies of the Palaeocene Forties Field project to BP, Shell and Esso. Unfortunately it is still confidential and cannot be seen publicly. But I can talk about it in a guarded way. It must be one of the most substantial pieces of work undertaken on this kind of evidence. That experience will be valuable for teaching and research.

Three referees are listed below and I am sending them copies of this application. My Head of Department at N.E. London Polytechnic is Mr John Stephenson, School for Independent Study, who can be contacted if required.

1. Prof W.G. Chaloner FRS, Department of Botany, Bedford College, Regent's Park, NW1
2. Dr N.F. Hughes, Department of Earth Sciences, Sedgwick Museum, Downing Street, Cambridge.
3. Prof A. Traverse, Department of Geology, Deike 529, University Park, State College, University of Pennsylvania, Pennsylvania 16802, USA.

Yours sincerely,



M.C. Boulter

copies: W.G.C., N.F.H., A.T.

NORTH EAST LONDON POLYTECHNIC

Faculty of Science
Palynology Research Unit

Romford Road
London E15 4LZ
01-590 7722

8th May 1984

Dear Al,

I hope it's alright for me to have used your name again as a referee. The New Blood appointments are "normally" for people under 35 years of age, so I don't stand much of a chance for a start.

I heard last week that I have funding to attend the two meetings in Canada this summer. So I hope to be able to see you there.

All is fair and bright over here. By the way, thanks for the note about the Elso Barghoorn obituary clash of directions. Of course, I agree with you, and have received Tiffney and Knoll's contribution.

Best wishes to Betty and yourself.

Many thanks
Mike

q

14 May, 1984

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Re yours of 8 May: you have carte blanche for recommendation-uses of my name. Glad to help, and I write a good strong letter. I guess it hasn't done much good yet. In the meantime, you seem to be doing all right where you are--you couldn't churn out so much stuff if you [situation were BAD.

See you in Calgary. I can't go to Edmonton at all and can only touch down in C. because under our new, wahnsinnig calendar, the Fall (!) Semester starts about 15 August. Did you have any interest in stopping over here?

Hang in there.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

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5 February, 1987

Dr. M. C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Presumably others have already written you re the clanger in IOP-N-31, pp. 9-10 re Callipteris. What Chongyang meant throughout was homonym, not "synonym". (I guess "Callixylon" just crept into the article typographically?) I presume your colleague WGC is chagrined that such a thing emanated from London under his presidency!

Best to you and Biddy, as ever.

Yours very truly,


Alfred Traverse
Professor of Palynology

→ AT/et
cc: WGC

to previously described species, cannot be quickly described as new species, and which conform to Hughes's regimental standards. He will not be happy with having a lumper like me being the first to use his system, but ODP deadlines insist that, let alone the noise of palynology itself, in the Tertiary. Norman has been very helpful and has suggested a number of improvements to the first draft. I'm unhappy about several of his 1986 recommendations and that comes out stronger from this testing of his PDHC, mainly to do with using PC's. If you get the ms, you will see (and I suppose you will if you don't).

The main reason for writing is to explain the rotten problem of that Chongyang item in IOP Newsletter 31.

Firstly, my policy is always to print what I'm sent, as I've said in the Newsletter many times, I'm not assuming the role of an academic referee, and don't intend to hire others to do that job. Contributors sink or swim with their writing, good or bad. I actually did write to Chongyang, and have a second time, explaining the confusion of his original text. I have had no reply. I want to put the issue on ice until he does respond.

I'm not sure that your explanation of the error is correct. Callixylon was bright and clear, and homonym/synonym is not the issue, as far as I detect. The point he is trying to make, I think, is the one I assume he has missed from Taxon. Compare volume 35(2) p370 with volume 30 p660. My guess, and WGC's, is that it is a genuine confusion about the taxonomy. Let's wait until Chongyang replies before we go public in the newsletter!

We hope Betty, your kids and you are all doing well in health and mind. We've moved house last summer, because our boys were getting a bad deal in their local state school. Now we're in Hampstead, a much more middle class area, with successful schooling and lots more benefit. There's still a room for you whenever you wish. Come over again: it would be fun to see you.

I plan to be in New York this Spring to sample ODP/DSDP at Lamont. It'll be a rush hop over and back and there is unlikely to be time to meet, unless there is some special day-return service.

Very best wishes,

Yours,



Mike Boulter

IOP

INTERNATIONAL ORGANIZATION OF PALAEOBOTANY

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Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England.

Prof. A. Travençolo
Pennsylvania State University
Department of Geosciences
435 Deike Building
University Park
PA 16802
USA

12th March 1987

Dear Al,

This bad delay in replying to your 5th February letter is mainly due to hectic work trying to meet ODP Leg 104 (Norwegian Sea) deadlines. That work has meant I've been in Germany and Norway, having great fun with the Dipping Reflector basalts laid down at the time of North Atlantic opening. There are pyroclastic clays with pollen and dinocysts. Manum has been able to use the cysts to give an NP10 date, lowest Eocene, and the pollen assemblage looks much like that from intrabasaltic clays at the Faroes, east Greenland, Antrim and Mull.

Our mss for the Leg 104 volume must be ready in a few days. One establishes what we call the Brito-Arctic Igneous Province Flora, stretching through about 20 degrees latitude from Rockall to near Svalbard: the plant grew on the sides of the volcanoes. Of course, both environment and plants are extinct, and have been since that volcanicity stopped, sometime in the Eocene.

Another reason for mentioning this is that ODP want 4 referees to be nominated by us (Manum and me) to critically assess the mss. They will use just 2 of these. We have offered yourself, Nichols, Williams, and Costa. If that's bad news, please forgive me, and decline if ODP approach you. I suggested your name for two reasons. Firstly, you are one of the few Tertiary palynologists with DSDP/ODP experience. Secondly, you are a healthy critic of Hughes' biorecords. Maybe that is me being a masochist because I use one of these papers to run a test of Hughes 1986 PDHC scheme. You will be one of the stiffest referees possible. I have several motives when selecting Hughes's method. One is to test his PDHC, which has never been done publicly. Another is that we are using PC database retrieval, for the oil company that's funding the Norwegian Sea project Manum and I have. The main reason is that I believe it's easier and more accurate for a rush job like ODP to give informal names to

Hunt Institute for Botanical Documentation

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18 March, 1987

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Thanks for interesting letter of 12 March. Wow!--you're really in the palynological big time. I'll be glad to do the review, if asked.

OK on Chongyang--I didn't bother to comment on the taxonomy, but the nomenclatural situation he seemed to be describing seemed clearly to be homonymy, not synonymy, and the difference is an important difference.

Interesting about your move of house. Thanks for invite. Often think of our last visit. It is possible to come to this area from NY easily (train or plane)--but up and back in one day is not really practical, though possible. We'd enjoy seeing you, of course. We plan to be out of town a good bit in May.

Best to you all. We're o.k. but very distracted by various problems. We'll be at the IBC in Berlin next summer.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

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26 August, 1987

Dr. M.C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

When I finally got back from all the trips (return from post-Congress trip was followed immediately by departure for Calgary--Devonian Symposium), the stack of mail included a package from you with "March 31st version...." Obviously I was supposed to have read this before going to Berlin, and it would have made your interesting presentation that much more interesting.

As I am occasionally trying to find time to finish my effort to put a fix on the Arctic stuff I've been doing for and with Leo Hickey. I would like to try to use the stratigraphic info from your and Svein's work. Unfortunately I have almost no dinos.

Important requests:

1. Please give me a literature ref. for the "NP zones". Doubtless I'm supposed to know, but at the moment I'm drawing a blank.
2. Could I have a xerox of whatever you have by way of a bibliography? Some of the references in Fig. 2, for example, are escaping me. This doesn't have to be in final form--just enough so I can run the papers down.

It was good to see you again and get some news. Your paper was a high point for me.

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

AT/et

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21 December, 1987

Dr. M.C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Whether 'News of individuals' is so far-reaching, I don't know, but perhaps you would want to note that Friedemann Schaarschmidt in August nearly became a victim of his fitness program. While cycling to work at the Senckenburg Museum, Frankfurt, from his home in Hofheim am Taunus, Friedemann had a serious accident and sustained multiple injuries including very dangerous ones to the head. He was "out of it" in a semi-coma for weeks and was unable to do any work until very recently. He is now much better and expects complete recovery. None of us dreamed when he was doing such a splendid but unobtrusive job as host at Berlin that he was so near such a disaster.

Yours very truly,

Alfred Traverse

AT/et

IOP

INTERNATIONAL ORGANISATION OF PALAEOBOTANY

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Dr. J. GALTIER, FRANCE
Prof. Z. ZHOU, CHINA

Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England

7 VI 88

(In haste to catch
post)

AI:

Are you writing up the Berlin
Congress nomenclature session for the
newsletter?

I would like to produce the next
edition in time for Australia!

Bill tells me of the Kew Revolution
for ICBN.

NFH's Bureau book is at the
printer: the opposition is healthy!

Best wishes

Mike Boulter

PALYNOLOGY RESEARCH UNIT
NORTH EAST LONDON POLYTECHNIC
ROMFORD ROAD
LONDON E15 4LZ

Prof A. Traverse
Pennsylvania State University
435 Deike Building
University Park
PA 16802
USA

July 1st 1988

Dear Al,

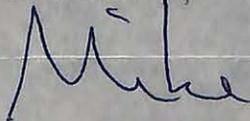
Just after I posted (mailed) my June 7 letter I realised my slip of memory about your Berlin contribution. Often when killing more than one bird with the same stone it backfires.

I have not been offered the chance of even quickly casting an eye on NFH's book, so I can't help. All I know is that it is about palaeontological taxonomy and that it is with the publishers. Why not write to Norman?

I'm sorry not to be able to hear your light hearted response, let alone the address you mention. I love my family (on holiday throughout August) too much to leave them then.

The Isle of Mull megafossil and pollen work is almost complete (for a Pal. Ass. monograph next year) and I am hunting round for money to finance a new project. Data storage and retrieval is a firm favourite.

Best wishes,
Sincerely,



Mike Boulter

THE PENNSYLVANIA STATE UNIVERSITY

DEIKE BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Earth and Mineral Sciences
Department of Geosciences
Palynological Laboratories

July 22, 1988

Area Code 814
863-3419

Dr. Mike Boulter
Palynology Research Unit
North East London Polytechnic
Romford Road
London E15 4LZ
England

Dear Mike:

Got yours of 1 July. I have written Norman, but he often doesn't respond to my letters, at least not timely.*

All the best!

Yours very truly,

Alfred Traverse

*but he did this time, just received. Says his book won't appear until 1989.

/jb

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23 June, 1988

Dr. M.C. Boulter
Department of Biological Science
North East London Polytechnic
Romford Road
London E14 4LZ, U.K.

Dear Mike:

Yours of 7 June 88 in hand (I was gone for a week recently) today.

Re: "Berlin nomenclatural session for the Newsletter"...I did write it up, and it appeared in IOP 34: 4-6. Was that a slip of your pen or am I missing something?

I just learned that I am to "respond" in a light-hearted vein to NFH's banquet address at 7IPC. I must see the book beforehand. I wonder how I can pull that off?

All the best, as ever.

Yours very truly,

Alfred Traverse

P.S. Many thanks for the valuable reprint!

AT/et

You are so "with it" that it's scary. I have never "faxed" anything in my life. I can however now after many years of trying, walk alone through a computer room without acute shortness of breath.

All the best.

Yours very truly,

Alfred Traverse

AT/et

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3 February, 1989

Dr. M.C. Boulter
Dept. of Biological Sciences
North East London Polytechnic
Romford Rd.
London E15 4LZ, U.K.

Dear Mike:

Yours of 8 January has been in hand now for a week or so. It came while I was last in Michigan tending to my mother's affairs. She's now had another episode of some sort, and I must go yet again.

Since you wrote you'll have received a letter from me with a copy of one from Cambridge Univ. Press. Makes it clear where we are. I am pretty sure they'll take us, but I am no stranger to disappointments! In any case, it will get published. I got very little (0) encouragement about the possibility of color plates from Camb. U.P., but I'll renew the query after they accept us. Maybe your compromise of a few in color would fly. Do you want the proofs back?

You "best friend lives in Alabama"? I thought she lived in London. Hmmm, I won't tell.

Re nomenclature--the current trend toward "sanctioned lists" is ASTONISHING....After a century of resisting even a commission to make choices in difficult cases.

I'd love to visit U.K. again. Betty and I are going to Switzerland, Germany and Austria in May--I'm going to Interlaken to give a position paper on plant evolution at a big IUGS-sponsored symposium. I hope I don't disgrace myself. WGC is coming here in April for 1-2 days to discuss the latest names business.

Now, about your draft. This is exactly the approach I wanted--it would be nice, however, if you could work in some thoughts here and there about the genesis, and especially about the transportation, of the various items.

4.4.2 unusual types which cannot fit into the kind of generalised forms described above and which may be peculiar to individual samples.

5. EXAMPLES OF THE USE OF THE PROPOSED NAMES

Illustrations and brief descriptions from named and controled sediment types -conclusions are interpretations for: deep marine - shallow marine - brackish - freshwater facies.

Hampshire and London basins: shallow marine / lagoonal

Bovey Basin and Lough Neagh: freshwater

ODP Leg 104: deep -> shallow -> brackish -> freshwater

Other examples of palynodebris observations are included from DSDP Leg 38 and ODP Leg 104. Figure X shows the relationship between the four groups of palynodebris described here, and the pollen and spore assemblages, from two sections known from other evidence to range from shallow water deposition at the bottom to deep water deposition at the top of the section.

Although this range of types is based on Palaeogene material (and includes angiosperm remains lacking in say Jurassic deposits) the concepts drawn from it apply equally to Mesozoic and Palaeozoic sediments.

6. REFERENCES

- Boulter, M.C. and Riddick, A. 1984
Brooks (Ed.) 1981
Cross, A.T., Thompson, G.G. and Zaitzeff, J.B. 1966
Durand (Ed) 1980
Manum, S.B. 1976
McCave, Nature
Scheihing and Pfefferkorn 1984
Piasecki 1986
Teichmuller and Teichmuller, 19
Traverse, A. and Ginsburg, R.N. 1966
Tyson, R. 1987 and in press
Venkatachala, B.S. 1981

final recognition of only a handful of different useful forms. These form the basis of the nomenclature, based on four major groups, summarised below.

4.1 Amorphous Matter

Burgess, 1974

Caratini et al 1975

Caratini et al 1983

Venkatachala 1981

Staplin 1969

Staplin et al 1973

Potonie 1908 and 1910 - sapropel

Cope

+ DSDP Leg 38

Specks - coprolites, resin, pyrites

ENVIRONMENT: absent in freshwater and shallow marine

PALYNOFACIES: common bisaccates and rare ferns, angiosperms etc
reworking

associated with deep marine dinoflagellate cysts such as:

Foraminifer linings

4.2 Palynofauna

Three main types are distinguished from Boulter and Riddick's analysis:

4.2.1 degraded bundles

4.2.2 leaf cuticle

- Parry 1981

- Cross et al 1966

- Barnard et al 1981

- Tissot et al 1974

- Oldham 1976

4.2.3 Well-preserved wood - Cross et al 1966.

Associated with shallow marine facies (dinoflagellate cysts)

eg Hampshire and London basins,

and freshwater facies (Azolla Botryococcus, Scenedesmus, Pediastrum, abundant pollen and spores, foraminifera linings, etc.)

eg Lough Neagh clays, Bovey basin

4.3 Black / Brown Wood and Degraded Debris

cf charcoal

- Masran and Pocock 1981

- Caratini etc

- Mull igneous

Associated with intrabasaltic sediments and metamorphic deposits as well as many other different situations.

4.4 Other types

This rubbish bin accounts for either

4.4.1 types peculiar to certain facies which show no particular sedimentological association

eg parenchyma, unstructured debris, comminuted debris (Boulter and Riddick, 1986)

or

The colour and preservation of palynodebris is also of value in so-called maturation studies which try to explain the chemical, and especially thermally induced, changes within a sediment since its deposition. This is important because oil is preserved only within a very narrow temperature window.

- refer to colour scales (plates)
 - black wood / unreliability / reworking
- Staplin 1969
Masran and Pocock 1981
Batten 1981
Brooks 1981

Another technique used in the study of marine sediments involves estimating the proportions of dinoflagellate cysts, water transported pollen, water and wind transported bisaccate pollen and palynodebris. This was initiated by Manum (DSDP Leg 38) and has been followed by many palynologists including Boulter (1986), Piasecki, 1986) and Manum et al (1989). This method impinges on estimates of Total Organic Carbon (TOC) and comparisons between the two have been made in the ODP Leg 104 biostratigraphic synthesis (Manum et al. 1989; Goll 1989).

Piasecki (1986) studied Lower Cretaceous palynodebris from Denmark and distinguished three sources. His marine sediments contained dinoflagellate cysts, terrestrial ones contained pollen, spores, tracheids, coal, resin and cuticles, and his limnic sediments contained Botryococcus and unstructured organic matter.

Review most recent literature:
Scheihing and Pfefferkorn 1984
Tyson 1987 and in press

4. THE FOUR MAJOR TYPES OF PALYNODEBRIS

The Forties Field work of Boulter and Riddick (1986) is used here as the basis of a standard nomenclature because it is from submarine fan deposits which include a wide range of different kinds of palynodebris which have been analysed statistically. The origin of the deposits remains controversial, and may have been formed by a variety of processes, reminiscent of rafting from very shallow water deposits, disturbance during storms in a shallow sea (McCave 1985), by turbidity-like calamities (Carman and Young, 1981), and by a combination of all three.

Here the importance of these studies is that they show a range of different kinds of palynodebris, ideal upon which to base a universal nomenclature. For these deposits cover the entire range of low energy freshwater lake deposits to very high energy sandstone formations.

Boulter and Riddick's statistical analysis of a generous variety of 36 types from the Forties Field sediments eventually led to a

standard nomenclature for types of visual palynodebris, compatible with all facies, and as far as possible to relate these types to a functional sedimentological setting for microscopical use.

"Palynodebris" is the name proposed by Manum (1976) to describe the broken plant parts and other organic remains found dispersed in marine and terrestrial sediments. Other names for the visually defined fossils have been used and often give ambiguous or misleading meaning. Examples of these less satisfactory names are "sedimentary organic matter" (SOM), "organic debris" (Piasecki, 1986), "dispersed organic matter" (Cope 19), "kerogen" (Brooks, 1981) and "palynofacies" (Caratini et al., 1975; Batten, 1981). Because just a few apparently conforming types of palynodebris are found in deposits of differing age and location there is a need for a standard nomenclature to facilitate comparisons and so to help palaeoecological interpretation.

For strictly visual observations there are many ambiguities and uncertainties built into previous systems of naming and classifying palynodebris. For instance, Masran and Pocock (1981) nominated eight major classes including charcoal, terrestrially sourced biodegraded materials and aqueous sourced biodegraded materials. Because of its precise meaning charcoal needs scanning electron microscope and geochemical testing before it can be properly identified, work beyond the scope of the simple visual technique. As for the last two of these classes, how can "terrestrial" and "aqueous" sources be reliably distinguished?

Other names have been used indistritinately without much attention being given to how the scientific proof of identity may be made. Resin, kerogen, leaf cuticle and sapropel are just four examples of terms with very precise meanings for substances which can be detected in the laboratory if suitable equipment is available. For the average visual project such testing is too time consuming so evidence for the presence of these materials cannot be obtained. In such instances, without the proper evidence, these precise names should not be used. There is a need for a system of naming types of palynodebris without using incriminating evidence: the names should be able to match the evidence and enable free license to the expertise of the operator in the interpretation (see section 3 below).

3. VALUE OF PALYNODEBRIS STUDIES

Although palynodebris types do not always conform to a simple pattern of sedimentation some generalisations can be suggested that interpret their historical significance in the majority of cases.

The greatest importance of palynodebris is to help reconstruct the palaeoenvironment at the time of deposition. Muller's (1959) classical work on the present-day deposits in the Orinoco delta established the value of palynodebris as a tool for this purpose. More recently Masran and Pocock (1981) have reviewed its major palaeoecological meanings and many other authors have made comparable conclusions. Many such papers can be found in Brooks et al (1981) and Durand (1980) and the main interpretations are included in section 4 below.

AN APPROACH TO A STANDARD NOMENCLATURE FOR PALYNODEBRIS

M.C. BOULTER, London

1. ABSTRACT

Palynodebris is a name given to microscopically visible broken plant parts found dispersed in marine and terrestrial sediments. Their study is valuable in assessing sedimentological circumstances of deposition but it has been confused by the lack of a standard international nomenclature for naming the different types. Previous studies of the morphology of palynodebris, mainly from Tertiary sediments in Europe, are critically reviewed and the value of these fossils in palaeoenvironmental reconstruction is appraised. A new classification of microscopically observable palynodebris has recently been established, based on a statistical analysis of a wide ranging set of types. This scientific testing has led to a simple and functional nomenclature which is applied here to a variety of facies and sedimentary deposits. Examples are illustrated of some of the major kinds of palynodebris which can be found in deposits formed in open marine, inshore shallow marine, brackish and freshwater conditions.

2. INTRODUCTION

Most palynological investigations start with the maceration of sediments for the removal of their inorganic content. Not only does this separate the palynomorphs but it often leaves a residue of other organic remains which can be studied microscopically as well as chemically. There is great variation in the names given to these non-palynomorph remains since most of its students are geologists who lack knowledge of plant anatomy and morphology, confusing, and often misleading and even wrong names have been given to some broken plant parts. It is the purpose of this article to try and establish a standard approach for the microscopist.

Three different approaches are given to the study of these fragments according to the nature of the problems to be investigated and according to the background of the authors.

2.1 Coal petrologists (see Brooks 1981, Durand, 1980) still use Stopes' (1935) terminology for the organic components of macerals. Teichmuller and Teichmuller (19) related these studies to a morphological approach.

2.2 Geochemical studies of kerogen (Crum-Brown, 1912) have recently been summarised by Tissot et al (1974) and Burgess (1974).

2.3 Palaeobotanical (includes palynology) studies of palynodebris are the central scope of this article and the visual microscopical observations that result form the basis of these comments on their nomenclature. It attempts to encourage a

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Head of Department:
P Dye MSc



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Prof A. Traverse
Department of Geology
Pennsylvania State University
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January 8th 1989

Dear Al,

This is a progress report on the palynodebris nomenclature ms, to ask if the flavour is right and to make suggestions about plates.

The five sheets below is a print out of what's on the floppy disc file so far. Of course, it's a very rough draft, and I send it only to check with you that it's appropriate to what you have in mind. If so I'll continue along these lines and should have a completed version by the time I promised, if not before.

I've had our photographer make crude copies of the plates I made some years ago of the Forties Field debris and a set is included. There is need to use only six or seven of these. They could even be reproduced in black and white.

My best friend lives in Alabama and is returning from London in early March. He could return with the originals (about 20 inches square). By chance his own business makes colour litho plates and I am sure he would do this job for no payment. Would that help your publisher elect for colour plates?

Please fax our response to the draft ms with instructions for any different approach or content.

Looks like the fossil plant nomenclature game is hotting up again. I have ideas to start a new IGCP project which would primarily decide on a standard international format for a PC data base for all fossil plant taxa. I'd love to talk to you about that and the other matters. Any chance of you getting to London for a few days? I'm sure WGC would welcome that too.

All best wishes for 1989. I've just heard of the latest plane crash. Come by ship.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mike".

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28 December, 1988

Dr. M. C. Boulter
Dept. of Biological Science
Northeast London Polytechnic
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

By now you will have received the preliminary, draft book proposal, etc.* When I soon do the next revision of it I'll change your "precis" per your just-in letter of 10 December. Thanks very much. I hope my by-guess-and-by-gosh precis didn't upset you too much--(one author threatened to quit). You'll get author instructions soon. Speaking of which, you really are trying to sharpen my Baker St. skills! "WGC birthday item" certainly has me guessing. If you mean he might emigrate, I would doubt it as he just sold the summer place in Maine.

All the best.

Yours very truly,

Alfred Traverse

*Note from ET: I hope you got this material. When I checked the mailing list today, your name was missing (!?)--must be one of those computer viruses. If you did not receive the 14 Dec. mailing (which definitely does include Al's "by-guess-and-by-gosh" precis of your material, please let us know asap and I'll send you another copy.

AT/et

DRAFT TITLE

AN APPROACH TO A STANDARD NOMENCLATURE FOR PALYNODEBRIS

M.C. BOULTER, London

DRAFT ABSTRACT

Palynodebris is the name most commonly given to broken plant parts found dispersed in marine and terrestrial sediments. Their study is valuable in assessing sedimentological circumstances of deposition but it has been confused by the lack of a standard international nomenclature for naming the different types. Since most of its students are geologists who lack knowledge of plant anatomy and morphology, confusing, and often misleading and wrong names have been given to the most commonly occurring broken plant parts.

Previous studies of the morphology of palynodebris, mainly from Tertiary sediments in Europe, are critically reviewed and the value of these fossils in palaeoenvironmental reconstruction is appraised.

A new classification of kinds of palynodebris has recently been established, based on a statistical analysis of a wide ranging set of types. This scientific testing has led to a simple and functional nomenclature which is described here from a variety of facies and sedimentary deposits. Examples are illustrated of some of the major kinds of palynodebris found in deposits formed in open marine, inshore shallow marine, brackish and freshwater conditions.

DRAFT CONTENTS

1. INTRODUCTION

Value of palynodebris studies

Examples of confusions and wrong names etc

2. LITERATURE REVIEW

Teichmuller & Teichmuller 1968

Marine Geology 1966

Durand (Ed) 1980

Brooks (Ed.) 1981

Scheihing and Pferrerkorn 1984

3. BRIEF SUMMARY OF Boulter and Riddick 1986

Leading to a list of a final nomenclature

4. EXAMPLES OF THIS NEW NOMENCLATURE

Illustrations and brief descriptions from named sediment types; conclusions are interpretations for: deep marine - shallow marine - brackish - freshwater facies.

5. REFERENCES

IOP

INTERNATIONAL ORGANISATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES

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Prof A. Traverse
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USA

December 10, 1988

Dear Al,

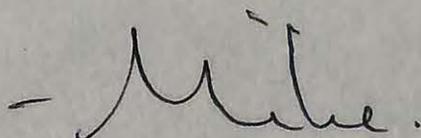
Thanks for your letter asking for a draft abstract. And please tell Dick Eyde, when you speak next, not to believe all he reads in the newspapers let alone all he hears on the radio.

A tentative, preliminary, hasty, first draft abstract and contents is enclosed for your critical appraisal. If this is NOT the kind of thing you want please let me know quickly and suggest changes. Otherwise I'll start writing over the next few weeks in the hope of presenting a first draft by late February. It shouldn't be very long. I'll also be taking some colour pictures at the microscope, so please give me an idea of the plate size and quantity that will be allowed.

The latest glasnost edition of the IOP newsletter has some hidden revelations. There may be more to the WGC birthday item than meets the eye. Quite a scoop, eh?* But then, there's that opening quip for Dick Eyde.

There's no sign of the IOP review of your book yet, I'm afraid.

Sincerely,



* Monday December 12, 1988: In the hope of you getting this before Christmas I post this letter today, from home. Your IOP newsletter 37 will be posted tomorrow from college. Suspense! Do you have a fax number? Mine is London 519 3740.

Hunt Institute for Botanical Documentation

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29 November, 1988

Dr. M. C. Boulter
Department of Biological Science
Northeast London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Yours of 13 Nov. just in. It will amuse you that Dick Eyde of Smithsonian called just before I got the letter--about naming of Cenozoic pollen. He quoted you and told me you had such a sonorous voice, that he tended to believe everything you said. That's very American.

You certainly do get some nice opportunities to meet interesting people--e.g., Akhmetiev.

Re the book project: let's do try to firm up the title*, and I need right away a brief, general abstract, for preparation of the formal outline-and-proposal for the publisher. As soon as I get that I'll send you a current outline of the whole deal--on which I'm working. I believe the "refereeing" will consist of my editing, perhaps with help from willing souls in the general area.

All the best to you and Bidy for the holidays.

Yours very truly,

Alfred Traverse

*P.S. I'm temporarily using "Palynodebris from European Tertiary sediments: an approach to a standard nomenclature."

AT/et

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Prof A. Traverse
Pennsylvania State University
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November 13, 1988

Dear Al,

Thanks for your 31st October letter setting out the dates for your sedimentology book.

I'll shoot for April (fool's day), but should have something earlier. Please tell me if the paper's to be refereed and I'll send a draft version much earlier. The chapter will include a general summary of the Sedimentology article by Riddick and myself as well as additional results from other palynodebris work I've done from DSDP material, shallower marine Hampshire Basin cores and freshwater sediments.

So a provisional title could be something like: "Palynodebris from deep and shallow sediments of the European Tertiary" or "Towards a standard nomenclature of palynodebris" or, well, let's wait for more thinking.

I'm off to Moscow tomorrow for six days to see Akhmetiev. Then three days in London and a weekend in Oslo for Hoeg's nintieth birthday party. The Moscow trip is partly IOP and partly Arctic Tertiary. We must not forget our conversation in Berlin about international cooperation in the high Arctic Tertiary. Is it time to bring the Soviets in with the likes of Hickey, Basinger, Norris and us? More later.

Over here, your election sounded a funny thing; there's talk of us exporting our Prime Minister to the highest bidder: Poland's favourite, though the US may be able to borrow more to pay the hire charges.

All the best to Elizabeth and yourself.



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31 October, 1988

Dr. M. C. Boulter
Department of Biological Science
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London E15 4LZ, U.K.

Dear Mike:

Enclosed are the two pages from the Mull monograph with a pencilled suggested improvement. I look forward to seeing the final version.

Thanks for kind comment about the book. As usually is the case, nobody (including the author) is 100% happy--I will change a lot of things if I get a chance to do a 2nd edition!

Regarding the sedimentology book. I'm in a fairly tough spot, in that I actually have a few MSS already. Thus, I can't let the time frame get too far afield. Even people who shoot for "April" probably won't make it. Could you shoot for April. If not, I guess we'd better drop it, as a year from now is certainly too late. I will try in the meantime to get permission for some color plates! If you don't come aboard, one of us can use 'em--it's a damned good idea. Your chapter would be a BIG plus.

Appreciated your personal news. That the boys are 9 and 11 is sobering. They will soon be absolutely independent, believe me.

Best, as ever.

Yours very truly,

Alfred Traverse

AT/et
encl

I know nothing about your S-12 symposium and would like some details of that and the other contributions to your book. That would help me plan the scale and context of what you're asking me to do.

Here's a good opportunity, Al, for me to congratulate you and Betty on your wonderful textbook. There is no doubt that it will become a classic. For the hell of it, there are, to my mind, just two curiosities: the preface and the non-pluralist explanation of nomenclature! The content and presentation are terribly well done. The oldest living palynology textbook author is reviewing it for the IOF Newsletter.

Thanks for your sentiment about the Australia meetings. We all had a great camping holiday in France. The boys are now 9 and 11 and can't be missed, not unlike French food. See you in Aix-en-Provence if not before.

Very best wishes,

Yours sincerely,

Mike Boulter

PALYNOLOGY RESEARCH UNIT
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Prof A. Traverse
Pennsylvania State University
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USA

October 19, 1988

Dear Al,

Many thanks for your snappy letter. I received it just after I returned here from the morning with Norman Hughes: I'm hatching something up which you may enjoy - designed to bring yourself and Bill (and ICBN based names) into line with him (and PDHC records), or else the other way round. More later, when I know if I'm in business. Money must come first.

Of course, I would love to contribute to your proposed book and am flattered to be asked. But I'm not too happy about your: "say, April '89" deadline. The "say" sounds like that's negotiable. Can it be a little later, please?

The Sedimentology paper was never very agreeable because it tried to do too many things at once, and was based on particularly unsuitable material. The North Sea Forties Field is a very complex basin for such work. So here is a chance to rectify that unhappy state of affairs. There are lots of data and observations from within that project that are not included in the paper and they can be mentioned in a broader more general context quite easily. These include work from real shallow water deposits of the same age, in the Hampshire Basin and DSDP Leg 48.

One argument I lost with the Sedimentology editor concerned the number and nature of the plates. I wanted 12 colour plates and he wanted one black and white. We settled for two. So you and I must start that again. Can your book include colour plates, and if so, how many? I'll start by asking for half a dozen.

There may be more trouble with Shell, Esso and BP, who financed the Forties Field project, than with Blackwells. The oil companies may need to be approached to give permission to use the Forties Field data. That could take a lot of time.

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11 October, 1988

Dr. M. C. Boulter
Department of Biological Science
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London E15 4LZ, U.K.

Dear Mike:

While browsing in the library I came across yours with Riddick in Sedimentology 33 re palynodebris and so forth. (Maybe I have a reprint too--I haven't checked.) Now, I know you turned me down re Symposium 12 for Brisbane. However, I have a new proposition: I am getting together a volume on palynomorph sedimentation based on a few of the S-12 papers, plus a number of others. How would you like to expand on the Sedimentology paper, plus whatever else you might include on palynodebris and other palynological sedimentation into a chapter for the volume? I don't think it would matter if the new version overlapped considerably with your Sed. paper, but I presume you'd want to make the chapter a little more general, and you'd have to alter the illustrations enough to prevent Blackwell from litigating. How about it? I'd need a very short, general abstract to use in my dealings with the probable publisher (Columbia Univ. Press) as soon as possible, and a MS by, say, April '89.

You were missed in Aussie-land, but I understand your desire to spend the time domestically.

Best.

Yours very truly,

Alfred Traverse

AT/et

IOP

INTERNATIONAL ORGANISATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES
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Prof. Z. ZHOU, CHINA

Secretary: Dr. M. C. BOULTER
N. E. London Polytechnic,
Romford Road,
London, E15 4LZ, England

TO: IOP Executive Committee
Regional Representatives

FROM: Mike Boulter, IOP Secretary

March 21, 1989

1. Because of badly arranged reorganisation within my college (which, by the way, is soon to change its name to "The Polytechnic of East London") my office and laboratory there are closed down. All my papers and materials are in a store. Consequently I imagine that the next IOP Newsletter will be delayed until about late May.
2. I have very little copy for this next newsletter. Please help, especially with the well received Observations column.
3. The new IOP Constitution requires Regional Representatives to supply me with names (and addresses if possible) of all members registered by you as having paid. Please send me your list for those you registered as members at the end of 1988.

Mike Boulter

A preliminary DRAFT proposal for a standard format of every fossil plant taxon

1. Personal Computer data-base jargon calls the uncompleted example below a single "Record" and each HEADING within it is a "Field".

2. The programme would enable an empty Record with Field headings to appear on the screen and be "filled in" for each new Record.

3. Search facilities for mainframe and pc searched copy would be available for Fields marked in Section 7 below: "*".

4. Data entry could be to reserved space in the Polytechnic of East London's mainframe computer either directly, by typing or scanning from printed (xeroxed) text, or by transfer from mailed floppy discs. These records would be created on pc floppy discs by a team of international experts from their home bases. An internationally elected group of palaeobotanists would determine the criteria for entry of data and monitor the content of the data base.

5. Data output would be from the central computer searching for requested Fields transferring to a floppy disc or a print-out for distribution on request.

6. Five years may be a realistic time in which to complete the database. A preferred input sequence might be: all plant genera/dinocyst taxa/Mesozoic plants/Palaeozoic plants/ Cenozoic plants/Proterozoic fossils. This sequence would be determined by financiers' requirements.

7. Record Example of field headings:

- * AUTHOR
- * DAY/MONTH/YEAR
- REFERENCE
- * NAME OF TAXON
- * COMPARISON RECORD STATUS [eg cf A: no different features, cf B: one different feature, cf C: more than one different feature, (cf) T: type specimen]
- * ORGAN
- * BOTANICAL RANKING
- * LOCALITY
- * ROCK FORMATION
- SAMPLE POSITION
- SAMPLE LITHOLOGY
- * AGE OF SEQUENCE
- RADIOMETRIC AGE
- * ZONE
- NUMBER OF SPECIMENS
- DESCRIPTION
- VARIATION in assemblage cf A - C
- PRESERVATION
- * FACIES
- * QUANTITATIVE FILENAME for access to data set
- * REPOSITORY
- EARLIER RECORDS
- SYNONOMY

M.C. BOULTER, March 20, 1989

A preliminary statement for a proposal to establish a database of
THE PLANT FOSSIL RECORD.

1. Introduction

The names of plant fossils are used to understand evolution and applied geological problems such as the age of rocks and the ways in which they were formed. Their descriptions are scattered very inconveniently in libraries all over the world and give very variable attention to detail. These difficulties mean that even existing data are substantially underused and that new taxa are allowed to vary in detail a great deal.

- This proposal aims to create a pc database of the fossil record
- 1.1 so others as well as palaeontologists can use it
 - 1.2 according to an agreed international standard format
 - 1.3 so that the data can be retrieved freely by all scientists
 - 1.4 so that standards of taxonomic description are high
 - 1.5 which is compatible with all international rules
 - 1.6 so that details such as quantitative observations can be included
 - 1.7 that can be maintained in the future.

2. The Problems

- 2.1 At one extreme the International Code of Botanical Nomenclature requires that these taxa have only loose descriptive criteria yet insists on type specimens, priority and rank.
- 2.2 At the other extreme Biorecords have tight descriptive criteria with no types, priority or rank.
- 2.3 Neither allow easy synonymy for applied use, such as for statistical analysis or comparison with other data.
- 2.4 PC databases can store, sort and retrieve such data and are beginning to be created separately by different scientists in different ways for different reasons.
- 2.5 "Taxa in common use" implies that some are useless. Who decide the criteria? [Surely it will be the users!]
- 2.6 Different standards of description and accessibility of data etc. make comparative studies difficult.

3. The challenge

- 3.1 Resolutions to negotiate the differences between 2.1 and 2.2 above can reach a democratic consensus.
- 3.2 Computerised data bases for palaeontological data are inevitable.
- 3.3 A standard format for these can be agreed now to avoid incompatibility and to enable the job to be done just once.

4. The work

- 4.1 Arrange a democratic means to agree a standard format (for example see page 2) of nomenclatural and taxonomic practice.
- 4.2 Write programmes to create this agreed standard.
- 4.3 Establish an international group of palaeobotanists to accumulate data.
- 4.4 Input these data to regional pc and a central mainframe.
- 4.5 Store and manage these PLANT FOSSIL RECORD data

5. The Product

- 5.1 Regions (such as North America, Europe, Asia, South America, Australasia, Africa, Japan, India etc) must be able to accumulate retrieve and maintain their own Palaeozoic/Mesozoic/Cenozoic databases and link to the central standard one.
- 5.2 This industrially financed central computer base would continue to provide international access to data for all earth scientists, both for accumulation and distribution.

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Secretary: Dr. M. C. BOULTER
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TELEPHONE ANSWERING MACHINE: London 267 1732
FAX: London 519 3740

TO: IOP Executive Committee
FROM: Dr M.C. Boulter, IOP Secretary
COPIES: IFPS Secretariat
IAPT Fossil Plant Nomenclature Committee Secretary

March 21, 1989

The Fossil Plant Record:
a proposal for a new international project

For some months now I have been having informal discussions with some of you about the idea of starting the project which is outlined in the enclosed paper.

The eventual aim is to have all details of fossil plant taxa on an open access computerised data base. This very ambitious suggestion is particularly timely as it involves, firstly, agreeing an international standard of description and software before too many of us go our own separate ways wasting time and causing confused incompatibilities.

Yesterday I was invited, as IOP Secretary, to the 1989 International Union of Biological Sciences Executive Committee meeting in Paris in five weeks time. I will attend as an observer at my own expense to seek some kind of support for the proposal.

If I have not heard from you before April 10th I will assume that you approve of this being done formally through the IOP Executive Committee.

I'm very sorry for the short notice caused by the late invitation to this year's IUBS meeting. But please be assured that very full consultation on the nature of the project is anticipated. At this very early stage all I am seeking is approval from prestigious bodies so that the project, if it goes ahead, has credibility to attract academic support and finance from industry.

If you and the IUBS Executive are to support this venture I will be writing in a few weeks time with further details.

Many thanks



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Prof A. Traverse
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Pennsylvania State University
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March 21, 1989

Dear Al,

This package comes to you a little earlier than I would wish. That's because Bill tells me he's spending a few days with you next month and I would greatly welcome your joint consideration of the enclosed papers about The Plant Fossil Record.

There are three reasons why I'm starting to get moving with the idea. Firstly I really do believe that such a thing is needed, I'm well placed within IOP and IFPS to get the international ball rolling, and the Statoil funded project on the North Europe Tertiary is now finished leaving me looking for a big new project. So I hope that you and Bill might be able to support the venture. Certainly I would hope it would fit into your nomenclature sub-committee's work over the next few years.

By the way, Bill hasn't seen these papers, so I enclose a set for you to give him. I rushed them through yesterday because only then did I get the invite to the IUBS Paris meeting.

While I'm writing it may be as well for me to include the latest version of my palynodebris manuscript. I see this as pretty well the final version, so it can serve, I hope, for the referee. It lacks references, table 1 (a list of results from DSDP Leg 38) and Figure 2 (a revision of the block diagram in Pocock et al 1988). You have poor copies of the 11 plates. I will wait until I receive the referees comments before I send you these. I also still have the originals to the plates. If the publishers can only afford black and white reproduction is it best for me to send you large black and white copies or do they want the originals?

Very best wishes,



1

enc: The Plant Fossil Record *2
IOP memos.
Palynodebris ms.
Draft fig 2. Table 1

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10 April, 1989

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, UK

Dear Mike:

Chaloner's visit here was very hectic, beginning with his plane arriving very late. We really had almost no quality time together. During his one full day here, he gave his "fossil fire" lecture, conferred with my four grad students and five other people, for at least 30 minutes each. To make a long story shorter, we never got to a discussion of your new proposal.

I have now read what you sent. The proposal is very exciting! I do hope, however, you know what you're getting into. That is an enormous project. Gea Zijlstra in Utrecht has been at it for a long while and reading one of her letters about the complexities makes it clear that it's a killer. The names in current usage (NCU) proposal is a much more modest deal and even it will be murderous, I await more info later from you. I do support the project as worthwhile and helpful. But you had better get megabucks for secretaries, etc.

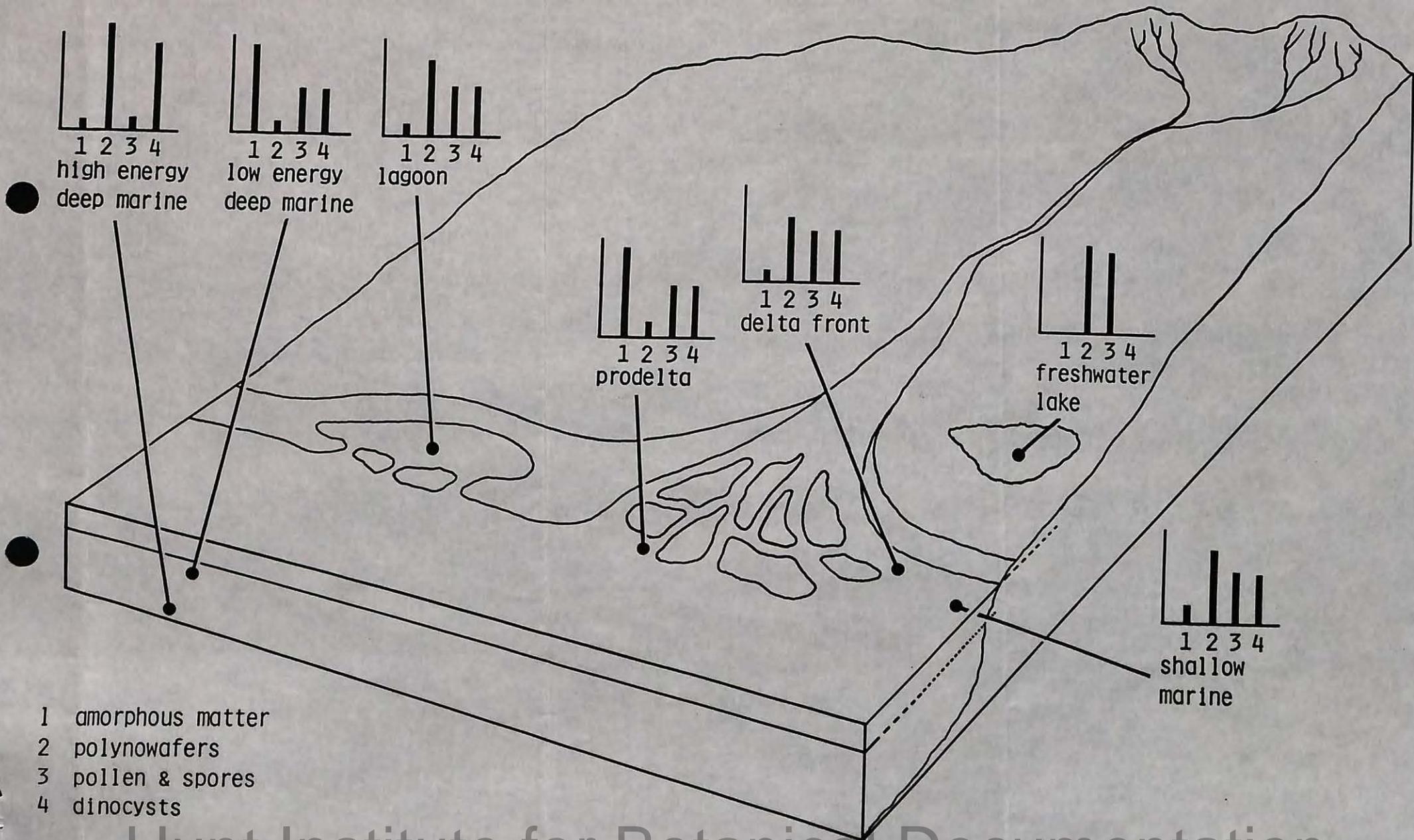
Re the book--thanks for MS. I'll get back to you later about that. There's been a problem with Cambridge Press about aspects of the book proposal, but I feel sure I'll have them sorted out this week, and I'll fire off a letter to all authors before I leave for Europe on 19 April (be back here on 5 June).

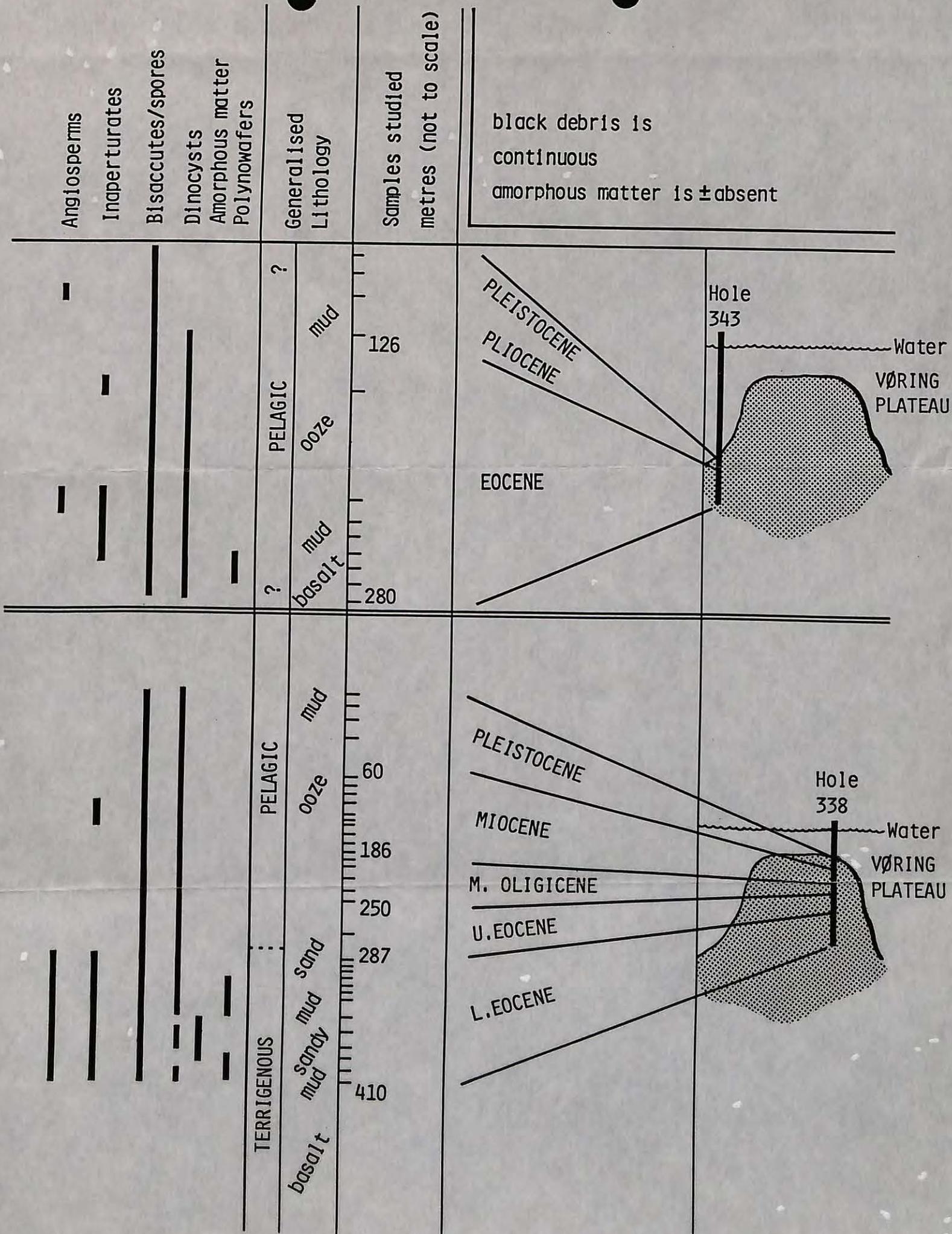
All the best.

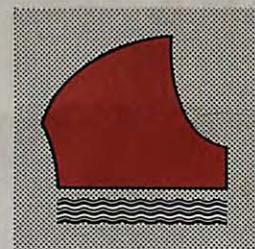
Yours very truly,

Alfred Traverse

AT/et
cc: Chaloner







School of Science
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Dr A. Traverse
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June 1, 1989

Dear Al,

Palynomorph Sedimentation book

Copies of the table 1 and figure 2 to my manuscript are enclosed making the set of papers you have from me complete. I am assuming that they are sufficient for the refereeing process and that you will send comments back shortly. You also have poor proofs of the 11 plates and will be deciding how many to use and whether they are to be colour or half-tone.

Names in Common Use (NCU) / The Plant Fossil Record (PFR)

Bill and I talked about the relationship of these two projects last week and this tries to summarise what passed.

1. Your project is nomenclatural. The IOP one is taxonomic.
2. Both projects would benefit from a pc system of data storage.
3. NCU could start from Ellen Farr's ING database discs, have extra taxa added from Meyen's catalogue and Andrews' index etc..
4. I have hardware and software to undertake these tasks.
5. We are trying to obtain finance for the PFR project. This must pay for hardware and at least three staff over five years or the project will not be viable. Currently I'm approaching software houses and oil companies and there is reason for optimism.
6. If the PFR work is financed its first task could be to compile your NCU database and act on instructions from Bill and yourself to complete your task.
7. This would mean selecting a database package suitable for both purposes. I think I've found one through the recommendation of David Hawksworth and his computer staff.
8. That same database would then be extended to comprise the PFR, once that group has established agreement about standard records etc.
9. This would make a wonderful demonstration of Jim Schopf's old adage that taxonomy works from nomenclature: PFR comes from NCU.

What do you think?

Sincerely

copy: WGC

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
(814)863-3419

16 June, 1989

Dr. M. C. Boulter
Dept. of Biological Science
North East London Polytechnic
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Current IOP Newsletter was especially interesting to me ~~by~~ because of review of my book (Faegri also wrote a quite different one for Grana).

The statement about dues confuses me as ^{do} such statements in many such newsletters (I get maybe 15). How is one supposed to KNOW if he's paid up?

More later about other matters.

Yours very truly,

Alfred Traverse

AT/et

THE PENNSYLVANIA STATE UNIVERSITY
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435 Deike Building
University Park, PA 16802
(814)863-3419

28 June, 1989

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

"~~Letter 2~~"

Dear Mike:

This responds to the NCU-PFR part of yours of 1 June.

I am not sure just where we're at re NCU. I gather from response to a form letter a few months ago from me (with WGC approval) to the Comm. Fossil Plants that there is not great interest in the project among the rank and file. Response has been underwhelming--in fact, zero. I don't think that's fatal, if sufficient funding were available ~~from~~ ^{from} one of us to undertake the codification, etc. I'd say, if you can really get personnel, hardware, software, money, you should be encouraged to go ahead--I mean NCU and PFR. I have said to Bill and others that our lab at PSU could do the palynomorphs--no question--if we could get funding. Maybe you'd want to sub-contract it to us? Anyway, I believe you should be strongly encouraged to go ahead yourself if there is really a chance of funding. That is the key. It can't be done nowadays with no cash--not even with a fair pool of free labor. Modem-phone costs, PC costs, etc. must be met.

All the best.

Yours very truly,

Alfred Traverse

AT/et
cc: Chaloner

IOP

INTERNATIONAL ORGANISATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES

-SECTION FOR PALAEOBOTANY

President: Prof. C.B. BECK, USA

Vice Presidents: Prof. D.L. DILCHER, USA

Dr. J. GALTIER, FRANCE

Prof. Z. ZHOU, CHINA

Secretary: Dr. M. C. BOULTER

N. E. London Polytechnic,

Romford Road,

London, E15 4LZ, England

Prof H. Andrews
RFD 1; Box 146
Laconia, New Hampshire 03246

copies: WGC, AT

July 18, 1989

Dear Henry,

The Plant Fossil Record (PFR)

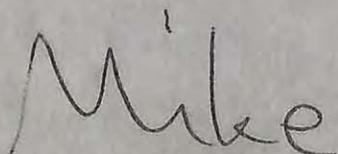
Maybe you noticed the announcement about this in the last IOP newsletter. Additional details are enclosed. It's a project based on the advice in the introduction section of your 1970 Index, where you interestingly enough, have a heading on page 9 urging IOP to take authority.

At last it looks as though we (IOP) have enough money to start a feasibility study. This is in strong association with Chaloner and Traverse's Nomenclature Committee "Names in Current Use" project. The latter leads on to the more ambitious and taxonomic PFR project.

I have access to some of the latest computer hardware including a text scanner. This should be able to convert printed text into ASCII language, and after some editing, convert the printed text into our own database format. I would like to start the project by using this method to incorporate all the data from your index into the database.

Firstly, though, I must ask for your permission and must check that we are not infringing copyright of yourself or the USGS. Do you have any views? There is no copyright statement in the Index. Secondly, if permission is granted, it is important to scan the best possible quality print. Otherwise, just a single letter that is badly printed (an "o" might have lost some ink to scan as a "c") can cause a lot of time-consuming trouble defeating the purpose of the technology. My copy of your catalogue has some letters poorly printed. I wonder if there is a better quality text available, such as a clean manuscript, which someone can lend me. That applies to the two supplements as well of course.

Best wishes,
Yours sincerely,



Mike Boulter

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
(814)863-3419

1 August, 1989

"book letter"

Dr. M. C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

⁴⁴⁻
faxed to: 01-519-3740

Dear Mike:

I'm going over the "book" correspondence. I find yours of 1 June, 1989, which was mostly about the NCU project. I can't find any proof here that I ever responded to the first, short paragraph, which was about the book. Indeed, you included copies of Table 1 and Fig. 2, for which thanks. I should be getting to you before too long about the MS in general. I trust that you in the meantime received and fired off the C.U.P. contractual stuff.

I have had a talk with Peter-John Leone, "our" editor at C.U.P., re your proposed color plates. He says that for a relatively low volume technical book it's quite impossible. So we have to figure out something creative in b&w--e.g., associated line drawings calling attention to areas (indicated by different patterns?) in the photomicrographs? As you know, I have the prints you sent me and I await further instructions--send them back? Obviously you will want to get at this problem promptly.

All the best.

Yours very truly,

AL

Alfred Traverse

P.S. I have followed your lead into the fax world--you may fax here to: 814-865-3191.

AT/et

POLYTECHNIC OF EAST LONDON

(formerly North East London Polytechnic)



School of Science

Head: Professor J E Neville BSc MTech CBiol MIBiol CertEd

Romford Road
London E15 4LZ

Tel: 01-590 7722 Ext

Fax: 01-519 3740

Prof A. Traverse
Department of Geology
Pennsylvania State University
435 Deike Building
University Park
PA 16802

August 3rd 1989

Dear Al:

Yesterday:

1. Received your faxes. Thanks. Too bad about colour. No surprise.
2. Heard IOP has funding from Informix Ltd (market a package we will use called Smart) to prepare dbase feasibility for NCU. Genera only at this stage. There is also money to assist key people to attend Krausel meeting Frankfurt June 1990 where we hope the thing can be discussed and a standard format declared.

Today:

Copies of 11 black and white plates are enclosed. Plate 7 is out of focus: reduction by CUP may improve this problem?
Annotations on paper in pencil: ignore the blue numbers on some prints.

I await referees comments before sending final ms.

Tomorrow:

The family goes on holiday to Wales for two weeks.

Best wishes
Sincerely,

Milee

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
(814)863-3419

28 July, 1989

Dr. M. C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Gotcha copy of H. Andrews letter re PFR. It's good to know of your frontal attack on the problem. I am willing to help, as I've previously said. As I've just written WGC, there's a chance that the apparent lack of interest of members of our IAPT.CFP is that I "snowed" them with my circular letter about the matter.

Best.

Yours very truly,

Alfred Traverse
Sec. IAPT.CFP

AT/et
cc: W. G. Chaloner

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
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435 Deike Building
University Park, PA 16802
(814)863-3419

"NCU matters
letter"

1 August, 1989

Dr. M. C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

faxed to: 01-519-3740

Dear Mike:

With several of the "authors" I am having a little trouble caused by mixing book and other business in one letter. So I have resolved to keep the matters separate.

This is about your very interesting letter of 30 June, and numerous enclosures, re NCU and related systematic matters. I think what you've "kicked off" is marvellous, though I would guess you have only a 50-50 chance of pulling it off.

Bad news--I have decided mostly because of the book, I can't leave Pennsylvania except for urgent family business (of which I have plenty) for about a year. I cannot therefore confer with you in Tulsa. (You would be most welcome at "Alphabet" enroute if you wish.)

All the best.

Yours very truly,



Alfred Traverse

AT/et

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
(814)863-3419

21 September, 1989

Dr. M. C. Boulter
Dept. of Biological Sciences
Polytechnic of East London
Romford Rd.
London E15 4LZ, U.K.

faxed to: 01-519-3740

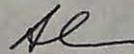
Dear Mike:

I will write separately about your MS soon, but I prefer to keep subjects separate.

I note in yours of 3 August, 1989, that "There is also money to assist key people to attend Kräusel meeting...June 1990...." Am I such a "key person"? Please tell me more. I would like to attend.

Best wishes as ever.

Yours very truly,



Alfred Traverse

AT/et

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
(814)863-3419

25 September, 1989

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, U.K.

Dear Mike:

I haven't asked you if it would be o.k., but because you are a good old friend I am going to presume on your friendship and am sending you herewith a Hart MS for our book, for review.

Enclosed are instructions for reviewers.

Thanks for compelling me to try FAX--I am a big convert.

All the best.

Yours very truly,

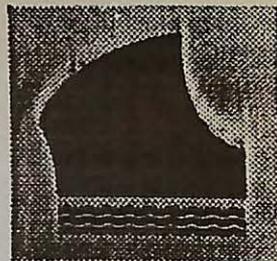
Alfred Traverse

P.S. About the ill-fated color plates for your MS. Do you want them back? If not, I'll probably have slides made for my palynology lectures.

AT/et
encl: MS

POLYTECHNIC OF EAST LONDON

(formerly North East London Polytechnic)



Romford Road
Stratford
London E15 4LZ
Tel: 01-590 7722 Ext

FAX NUMBER: 01-519-3740

FAX MESSAGE SHEET

DATE 4 OCT.....NUMBER OF PAGES(including message sheet).....2

FOR THE ATTENTION OF PROF A TRAVERSE.....

COMPANY/ORGANIZATION Penn State University.....

FAX NUMBER 0101 814 865 3191.....

FROM PROF M BOULTER.....

DEPARTMENT BIO SCIENCES.....

SPECIAL INSTRUCTIONS.....

Best wishes to you + Betty
Sorry you're not at Tulsa

If all pages are not satisfactorily received please telephone
01-590-7722 extension 4014 or 4015.

IOP

INTERNATIONAL ORGANISATION OF PALAEOBOTANY

INTERNATIONAL UNION OF BIOLOGICAL SCIENCES
 -SECTION FOR PALAEOBOTANY
 President: Prof. C.B. BECK, USA
 Vice Presidents: Prof. D.L. DILCHER, USA
 Dr. J. GALTIER, FRANCE
 Prof. Z. ZHOU, CHINA

Secretary: Dr. M. C. BOULTER
 N. E. London Polytechnic,
 Romford Road,
 London, E15 4LZ, England

4 X 14 89

1. I will mail Darby & Hart ms, refereed, from the AASP meetings.
2. IOP's PFR committee (Hill, Boulter, Schopf, Galtier?) should dish out money for Frankfurt: you must attend!
3. The PFR project (+ Names in Current Use) goes VERY well: optical discs; new generation software expert; good WGC student helps.
4. Please keep colour prints

Mike

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
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435 Deike Building
University Park, PA 16802
phone: 814-863-3419
fax: 814-865-3191

6 November, 1989

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

My filing system goes awry if I mix things up, so this is a separate letter about your fax of 4 October (mostly about MSS). Paragraph 2 says "IOP's PFR committee...should deal out money for Frankfurt: you must attend."

How do I go about applying for said \$?

Best.

Yours very truly,

Alfred Traverse

AT/et

THE PENNSYLVANIA STATE UNIVERSITY
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PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
phone: 814-863-3419
fax: 814-865-3191

6 November, 1989

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Ken Piel delivered the Darby & Hart MS with your review, for which many thanks! You are an incredibly productive man.

The reviewer of your MS has not been so prompt, and I'll have to start shaking that tree pretty soon.

Sorry I missed you in Tulsa. It's a good thing I didn't plan to attend, as I was totally occupied here, getting ready for the Piel visitation. Penn State went all out to impress him!

All the best.

Yours very truly,

Alfred Traverse

AT/et

So there you have it. Your revisions will have the effect of lengthening the chapter some, which is good. As it stood, it was pretty terse--the text wasn't up to the illustrations.

I look forward to getting the revised MS as soon as possible.

All the best as ever.

Yours very truly,

Alfred Traverse

AT/et

encl: MS with suggested changes; xerox of reviewer's letter

THE PENNSYLVANIA STATE UNIVERSITY
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fax: 814-865-3191

27 November, 1989

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Well, here I am back at you about your chapter for the sedimentation book.

I asked a well known palynologist who has, in fact, worked in the sedimentation of palynomorphs rather widely, to read your MS. However, the person in question is clearly rather ignorant about palynodebris! Nevertheless, the comments from this reviewer are somewhat helpful in indicating how an iconoclast can chop us up, and you will need to respond to some of the criticisms. They are in ordinary pencil.

I have written with red pen, commenting on both the reviewer's statements and your MS.

A general comment from me: what you're dealing with here (as distinct from NCU project!) are terms. I have tried to weed out names and nomenclature in favor of terms and terminology everywhere.

I believe you need to provide a table summarizing the Forties Field work, since it is so critical and basic to this chapter.

I think you need to summarize the statistical approach used to produce Fig. 1 (which in my opinion should be redesignated a table).

"Figure 2" should be a text-fig. I don't agree with the reviewer's dismissal of it, but it needs some help--I have suggested what I'd do, in red on the fig. itself.

"Table 1" should also be a text-fig. and is in need of cleaning up and improvement as you are aware.

The reviewer made no comments on the plates. I assume you have copies thereof.

The source of all the samples illustrated is from the Palaeocene Forties Field of the North Sea.

Plate 1: Some of the specks are pyritic

Plate 2: Many of the categories do merge into one another and many such doubtful specimens have been illustrated

Plate 5: tracheids and black matter are examples of two such merging categories. I suggest the caption stays as it is.

Plate 7: I agree but it cannot be shifted

Plate 11: I prefer it to stay as it is or be removed entirely.

All of this will not be clear to you, Al, until you see the originals. This is what happens when something is put together for one purpose and then used for another. I hope the inclusion of this ms, by an absentee of the Brisbane meeting, is not too much like a sore thumb.

Maybe we might both get to the AASP meeting this year: the database projects do need discussion.

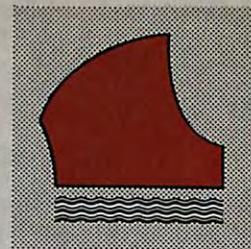
Best regards

Mike

Palynology Research Unit
Head: Professor M C Boulter PhD FGS

Romford Road
London E15 4LZ

Tel: 01-590 7722 Ext
Fax: 01-519 3740



Prof A. Traverse
Department of Geology
Pennsylvania State University
435 Deike Building
University Park
PA 16802

January 2, ~~1989~~ 1990 (!)

Dear Al,

I knew I'd sent the draft version of my manuscript too early, and you knew I've always been a bit half hearted about it anyway; the Forties Field project ended five years ago, and though I'm flattered to be asked to contribute to your book, it is still not very wonderful work. The referee sniffed this out.

Anyway, here is the final version, with all comments from the referee and yourself answered. One underlying issue is a difference between UK and USA palaeontology writers. Most of us thankfully don't have to publish to keep our jobs, despite Mrs Thatcher's philistinism. That means I hate to publish the same thing twice and hope that readers will refer to Boulter and Riddick 1986 if they're interested. Since the referee obviously didn't do that, which means that most other readers of this current piece won't either, I suppose that's argument to repeat some of the original. But I have still not explained some of the details as much as I think you would wish: they're all in the referenced work. I have had a modest attempt. If you want more, particularly on the stratigraphical aspects of the principal components issue, please fax me. Alternatively ask CUP to use Figure 24 from Boulter and Riddick 1986 and insert that at the appropriate place.

You already have the black and white copies of the plates which I assume are satisfactory for the printer.

I hope the new text-figures are alright and that the new table serves the needs you annotated to the first parts of the draft ms.

IOP 40 and my brief note about money for Frankfurt should have reached you by now. I do hope you can get to the meeting. There are two of Bill's ex-PhD students working at editing the newly ordered ING data working with me more or less full-time. We hope to get a good draft of the whole thing for the Frankfurt meeting in late May. Also one of Meyen's students, Alex Gomankov, is due here for three weeks in March to add that Moscow catalogue. More is happening on the computer database search front which should be ready for demonstration sooner rather than later.

Best wishes to you all for 1990

Sincerely
M.C. Boulter

THE PENNSYLVANIA STATE UNIVERSITY
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435 Deike Building
University Park, PA 16802
phone: 814-863-3419
fax: 814-865-3191

2 February, 1990

Dr. M. C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

⁴⁴
faxed to: 01-5193740

Dear Mike:

Not a proper response to your memo of 13 Dec. 89, but a note to let you know that I can't make it to Frankfurt after all, regardless of finances. The reason is other pressing obligations: family, professional and university.

More later.

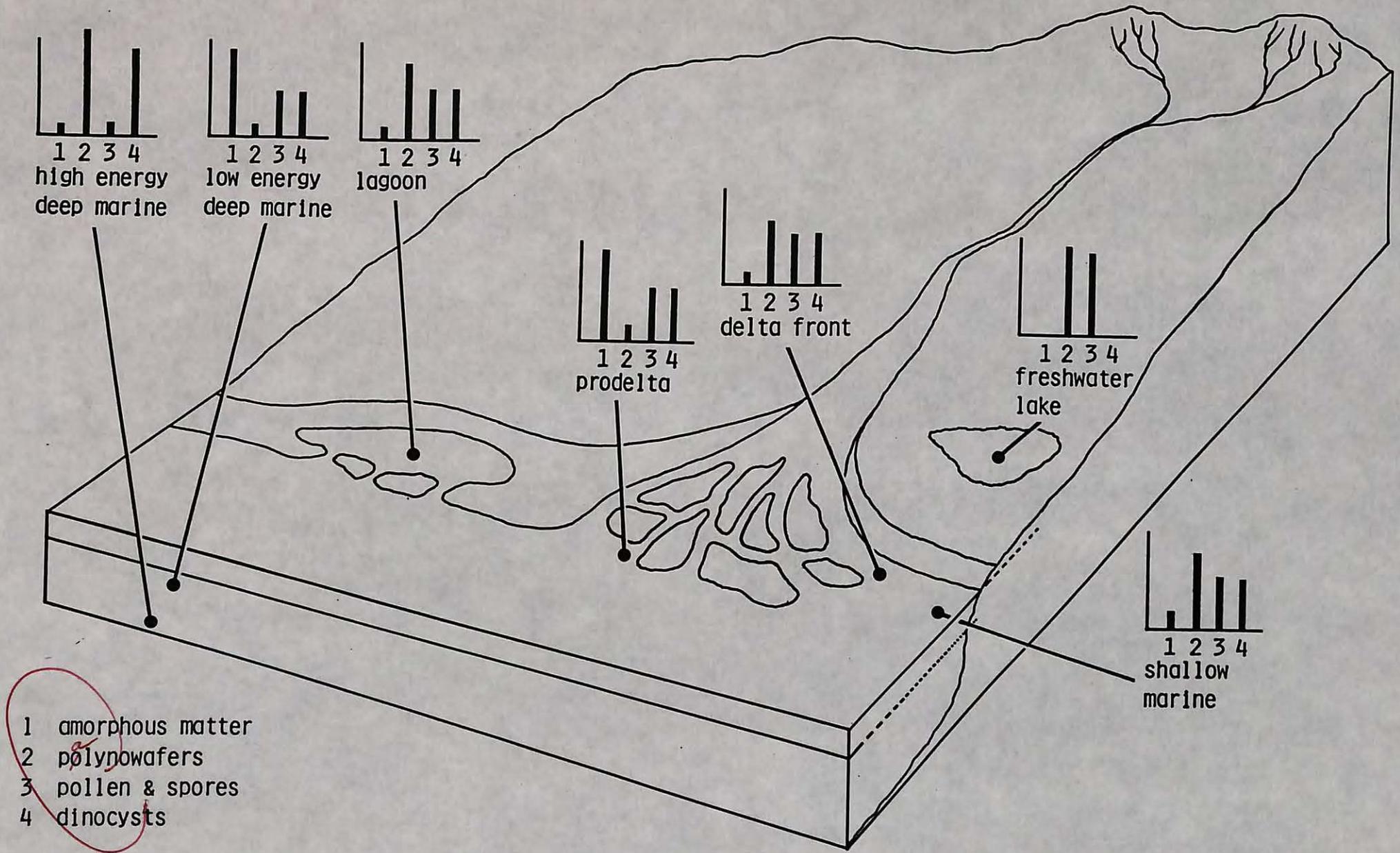
Best as always.

Yours very truly,

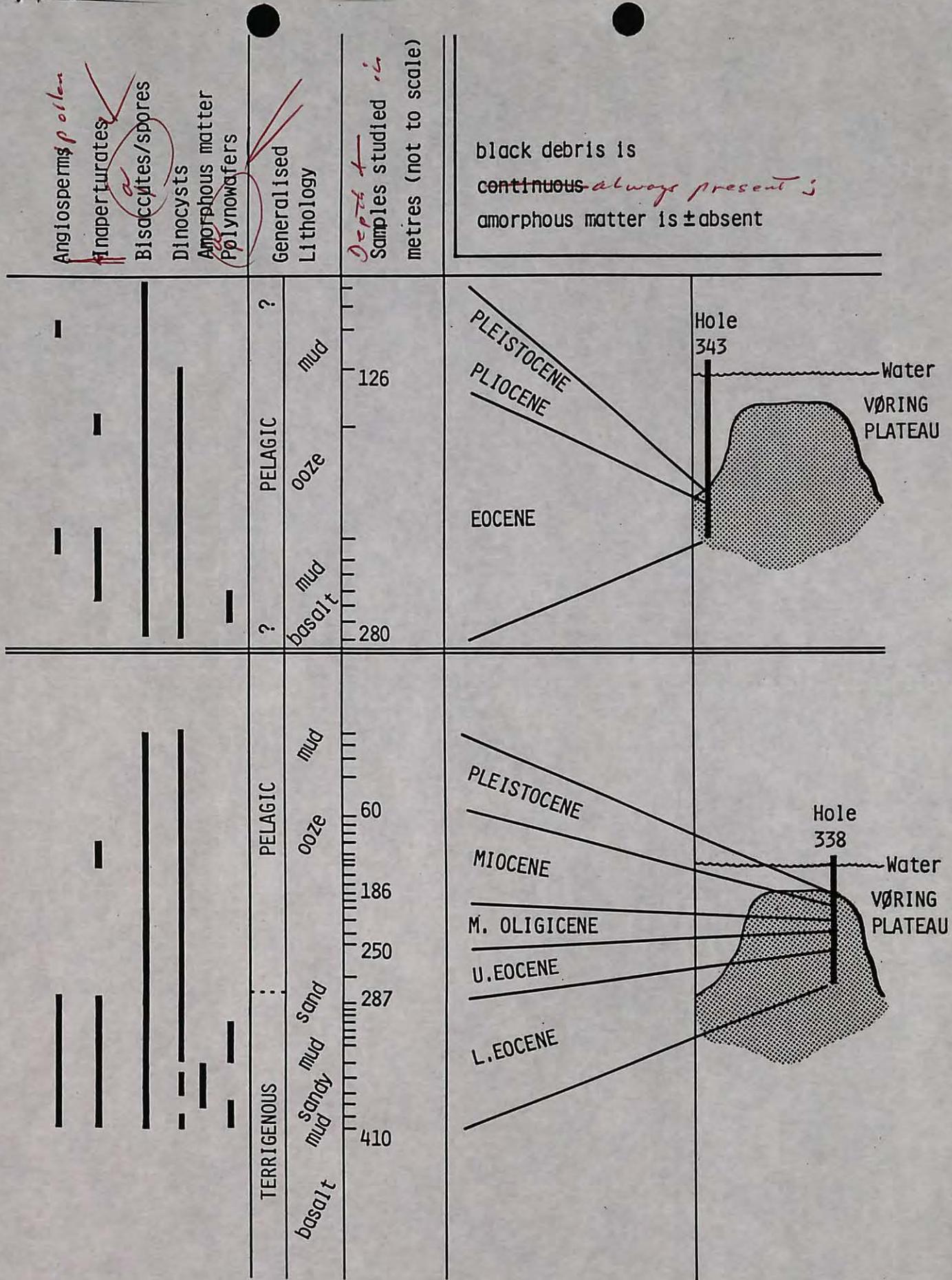


Alfred Traverse

AT/et



- 1 amorphous matter
- 2 polynofifers
- 3 pollen & spores
- 4 dinocysts



black debris is
~~continuous~~ *always present* ;
 amorphous matter is \pm absent

All plates: at head of "explanations," we should indicate source of samples--could you give it to me the way you want it to go in?

Pl. 1: surely some of the specks are pyritic? Don't you want to suggest this possibility in caption and/or text? (especially as you note reducing conditions).

Pl. 2: some of figures in Pl. 1 (e.g., 1:7) look just as (or more) "sheetlike" as 2:4. Can you help me understand?

Pl. 5: 5:9 seems not very obviously tracheal. 5:10 looks like your black matter? Comment? If you agree, why not remove them, turn 5:11 sideways and call it 5:9?

Pl. 7: why isn't 7:7 "obviously tracheal" and therefore out of place here?

Pl. 11: why don't 11:4, 11:7 belong on plate 6? If so, what about that category "perforated phytoclasts" as a whole? Should it be retained (e.g., in Table 1)? The figs. just enumerated are vessels, fiber or tracheid elements or pieces. This plate without them would be "miscellaneous and incertae sedis." In fact, 11:9 could go on Plate 2? 11:11 could go on Plate 5--pretty obviously ray? (just asking). 11:12 isn't a very helpful picture. Maybe Pl. 11 could be dropped with some further discussion somewhere about "perforated phytoclasts." What do you think?

Could Plates 1 & 2 be combined with fewer examples of each type, and captions listing which ones are sheetlike? You could do this and eliminate Plate 11 entirely by putting the non-redundant figures elsewhere (11:5 would go nicely on 1 or 2; 11:6 and 9-11 could also go elsewhere, with a caption explanation that these assignments are unsure).

Anyhow, I now need the actual plates, not photos of them, and I believe it would be helpful to condense them to 9, more or less as suggested.

Look on the brighter side--you're almost done with this thing! I think you'll like the final product.

Yours very truly,

Alfred Traverse

AT/et
encl: xeroxes

THE PENNSYLVANIA STATE UNIVERSITY
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fax: 814-865-3191

11 June, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

The book project has been much (and discouragingly) delayed by a long string of personal problems, mostly relating to my mother. I must go to Michigan for probably the last time about this matter later this week, to empty Mother's home--big job.

However, I have worked on your MS, and have a few problems that it seems to me can mostly be handled here, if you will allow me a bit of freedom in editing.

There are, however, some queries about certain matters I want to be sure are right. Please respond specifically:

p. 3, 4 l. from bottom: I am inserting after "charcoal" a parenthetical explanation ("carbonized woody plant tissue").

p. 5, l. 12: I have added the word "flow" before calamity (and corrected spelling of calamity).

many places: I am changing "Amorphous Matter", etc., to "amorphous matter" (except in Table 1), because lower case seems to me "correct" and because you weren't consistent in capitalizing it anyway (see your keyword list, and the explanation for the plates, Pls. 1 & 2, etc.).

Table 1, at bottom: you mean "kinds" or "types", not "taxa", right? I chose "types"--would you prefer "kinds"?

Text-fig. 1: this still needs some minor changes, I think. I enclose a xerox with my suggestions, and spelling corrections. Could you now make a clean final copy for me?

Text-fig. 2: this has only one spelling error, but it would be hard to match the latter. Can you correct it and send a clean final copy? I enclose a corrected xerox.

Plates: here I've got some serious problems, as opposed to the routine matters above.

Palynology Research Unit
Head: Professor M C Boulter PhD FGS

Romford Road
London E15 4LZ
Tel: 01-590 7722 Ext
Fax: 01-519 3740



Prof A. Traverse
Department of Geology
Pennsylvania State University
435 Deike Building
University Park
PA 16802

fax 814 865 3191

July 4th 1990

Dear Al,

Here are replies to the points you made in your 11th June letter. Because they are large and delicate Bill Chaloner will be bringing the plates and also, I hope, the corrected text-figures.

By the way, a great deal has been happening both with your Names in Current Use project and with IOP's Plant Fossil Record project after a successful Frankfurt Declaration. Bill will be talking to you about all of this.

p.3 1.4: I agree with ("carbonized woody plant tissue")

p.5 1.12: I agree with flow

many places: I agree with "amorphous matter"

Table 1: I prefer "kinds"

Text-figs 1 & 2: these are being corrected

So the last remaining difficulties are the plates. These were composed about six years ago to provide copies for the Forties Field project sponsors, Shell, Esso and BP. They consist of unique colour prints, prepared by one of those holiday snapshot photographers, mounted on card about 0.5m square. The prints cannot easily be detached and BP have the negatives. So I fear your suggested improvements cannot be made without enormous trouble and luck. It is simply not worth the effort.

Another problem is that the original plate numbers and scale bars are still in place but showing their age. I hesitate to clean them up myself in ignorance of the house style. It is usually the sort of thing the printer does so I will leave it to them. But you may feel they are alright as they are bearing in mind that there will be a substantial reduction in size.

THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF GEOSCIENCES
PALYNOLOGICAL LABORATORIES
435 Deike Building
University Park, PA 16802
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31 July, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

This will be a nomenclatural comment, separate from the sed-book project. It confuses me and the filing system to deal with them in one letter!

The copy of "Frankfurt Declaration" you faxed on 5 July was read with interest and discussed with W.G.C. while he was here. I admit that the overlap between "registration" NCU" and "PFR'" projects confuses me quite a bit, but the WGC-AT conference cleared the air some.

Obviously you and your H-H satellite-group are doing a very important job. Thank whomever that you got a little funding to make it possible.

Bill is going to try to get me an invite to attend the meeting this winter in UK re the nomenclatural aspects of registration, etc. I might be able to attend, but it's a long shot.

I can't go to AASP in Alberta in the Fall--have already been gone, gone, gone. Sorry.

Will write about your chapter very soon.

Yours very truly,

Alfred Traverse

AT/et

cc: W. G. Chaloner

p. 4, 2.6.1: what islands in the Gulf of Mexico? Surely you mean the Caribbean! What about Trinidad and Tobago? Greenland doesn't have to be "incorporated into N. America." It is a part of North America in all senses except politically.

2.6.4: Bosphorus (note sp.): most of Asiatic Turkey is east of the Bosphorus, but some is north, some south, some west. The correct thing to say is "Anatolia." European Turkey (Thrace) is not part of Asia.

p. 5, 2.7.1: it's weird to put Korea and, e.g., Hokkaido in "SE Asia." I think you need a "NE Asia" category for Japan, Korea, eastern Siberia, etc.

p. 6, ##23: I object! Here you have a real chance to go modern: divide Cenozoic to Paleogene and Neogene (extending to present), with the Pleistocene epoch continuing to present. As Bill Berggren, the world's authority on Cenozoic stratigraphy says, "Tertiary & Quaternary should obviously join Primary and Secondary on the scrapheap of science."

All the best. You are really earning everybody's undying gratitude!

Yours very truly,

Alfred Traverse

AT/et
encl: completed PFR questionnaire

THE PENNSYLVANIA STATE UNIVERSITY
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2 August, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Have now more or less digested the Frankfurt Declaration, the PFR proposal for Second Phase, etc., and the Holmes-Hemsley Circular 8 (what were Circulars 1-7?), copies of which were brought to me by personal messenger (WGC) a couple of weeks ago. (Is Hemsley deceased?--the cross after his name on Circ. 8 would in Eugène suggest that, as there is no other explanation. Poor fellow--PFR and NCU did him in?)

I have a few further comments on Circ. 8:

p. 2, para. 1: I would dispute that Hughes' "biorecords" are a practical way to go for the PFR.

para. 5, l. 6: "palynomorph" should apparently read "other palynomorph" or "palynomorph exc. sporomorphs." Apparently spores and pollen are treated separately. They are subsumed under the useful term, "sporomorph."

para. 6, l. 5-6: see just previous comment.

para. 7, l. 2: taxon singular, taxa plural.

para. 7, l. 5: it's "accommodate"--you all need spelling- and grammar-correcting software.

p. 3, para. 5, l. 1: ref. is apparently to Art. 18.5 (it's necessary to be so precise!); family names mentioned there, such as Leguminosae, are not "conserved!" (see also Art. 11.1). These are alternate names, allowed but not required. Their use is so nearly universal that I believe you should use them--note, e.g., that in the Code itself, current edition, p. 209, it is Fabaceae, not Leguminosae, that is parenthetical! No names above the rank of family have standing under the Code, in the sense that it's dealer's choice (no priority recognized--see Art. 11.1 and 11.2).

doesn't add to what is already illustrated, in my fallible opinion, and I would add language in the text to explain that perforated phytoclasts are an intergrading category, etc.--it was not a featured category anyway.

With fear and trepidation, as well as best wishes, I am

Yours very truly,

Alfred Traverse

P.S. N.B.! Do you have a diskette for the MS (WordPerfect preferred) ?--would be helpful.

P.P.S. Just spent 5 days with George Hart, working on his 3 MSS--interesting and profitable experience. He never guessed who the chief reviewer of Darby and Hart was (M.B.).

AT/et

encl: xeroxes

- 1) proposed new Pl. 7 (to be further expanded if you'll permit)
- 2) "old" Pl. 7
- 3) modified caption sheet

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2 August, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Have just worked on your MS--I think it's going to be fine in final form! Thanks for corrected figures. The great folio-plates of your "palynodebris" are splendid things and arrived via WGC in good order (you sent one that is not in the MS). I am happy with the changes you agreed to accept, and have red-pencilled them in. The "merging categories" are a bit awkward for a neat mind, but I've tried to insert explanatory phrases here and there, echoing words in your letter of 4 July 90. I think it's important to do this, or some people would otherwise think you're botanically philistine.

However, I still want to argue about plates 7 and 11! Let's start with Pl. 7, where, as I pointed out in my letter of 11 June, your identification of fig. 7 as showing "absence of structure" made you look confused. You wrote, "I agree, but it cannot be shifted." I got very nervy, went to a large papercutter and in a few minutes produced a new version of Pl. 7, of which a xerox is enclosed. Fig. 7 is removed. I also enclose a xerox of the "old version," in case you now are without a copy, and a xerox of the proposed changed caption.

Our photographer possibly will be able to do a better job of b&w-ing your color plates than what you submitted earlier, but that awaits performance. I can always fall back on your copies if I'm wrong.

Now, the question is--would you please give me license to remove figs. 6, 9 & 10 (the only ones not represented elsewhere) from Plate 11, and add them to an expanded Pl. 7? (The individual photos on my "new Pl. 7" are only loosely glued down as yet in order to make this possible.) This would cause slight changes in caption and text, of course. I think the Sphagnum leaf and the two incertae sedis specimens should be kept in. The rest of 11

Boulter MS: caption for "new Plate 7"

7. 1,4,6 Black debris of very variable size and shape but shows no cellular detail (6 is a collage of sections of a single print, to eliminate blank space).

2,3,5,7 brown debris is of comparable size and shape and may show obscure cellular detail.

8 Sphagnum leaf.

9 - 10 incertae sedis (bar for 10 applies also to 9).

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13 August, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Thanks for your faxed permission to tinker with your handiwork!

Here's a xerox of the penultimate, "new Plate 7" and its new caption. Please note the tiny problem re the new fig. 9 (was fig. 10 in old Pl. 11)--it has no bar. I assumed you meant the bar on the other incertae sedis (note corrected sp. of sedis), fig. 9 in old Pl. 11 (now fig. 10 in new Pl. 7) to apply to the other i.s. as well--right? Xeroxes of old Pl. 11 and old Pl. 7 enclosed in case you don't have for comparison.

It was a temptation to fax this, but I presume we'd lose too much on the photos--the xeroxes are bad enough!

Yours very truly,

Alfred Traverse

AT/et

encl: copies of old plates 7 and 11, new plate 7 with caption

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4 September, 1990

Dr. M. C. Boulter
Dept. of Biological Science
Polytechnic of East London
Romford Rd.
London E15 4LZ, England, U.K.

Dear Mike:

Thanks for the ODP reprints by you, Svein and others. The color plates in one were unbelievable. Cost us taxpayers a bundle. The papers themselves very interesting! Re funding for PFR project--I even have trouble funding my own little things, and our country is threatening to go broke. Hmm. I wish you and Phil, etc., all the best, however!

Yours very truly,

Alfred Traverse

AT/et

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28 October, 1991

Dr. M. C. Boulter
Department of Biological Sciences
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Yours of 16 October just arrived. Glad you quit fumigating yourself--are you like Mark Twain, who said, "It's easy to quit smoking. I've done it hundreds of times."?

Re the "Brown list"--I am getting my lecture for Sahni Centenary ready, as well as copin^g with my palynology course, etc., etc., and preparing for the sabbatical in Frankfurt, which begins 28 Dec. There is no time at the moment for even one more project. However, I have glanced at the list and immediately pick up several facts on which to comment:

1. Although the list purports to be a list of fossil species of extant (better word for it than "modern"!) genera, at least some extant species are listed, e.g., Rhus toxicodendron, Carpinus caroliniana, Cornus alternifolia, Alangium platanifolium (why not in Alangiaceae?), Nyssa silvatica, etc. Brown mentions this in the introduction, but it isn't clear what will be done about it.

2. Species based on pollen are excluded, e.g., species of Alangium, Nyssa, Rhododendron, Vaccinium, etc., published by Traverse. Of this I find no explanation.

3. Engelhardia is misspelled.

4. Are Bruce Tiffney's fruit and seed species not included? I thought he had some in extant genera.

Gotta dash. Best wishes as ever. I hope S.M. Brown will forgive me for replying directly to you!--I wanted to maintain contact.

Yours very truly,

Alfred Traverse

AT/et

p. 2 of Fax to

Catherine Flack

0044(0223-315052)

FORSCHUNGSINSTITUT UND NATURMUSEUM FRANKFURT
PALAEOBOTANISCHE SEKTION
SENCKENBERGANLAGE 25
6000 FRANKFURT A.M. 1, DEUTSCHLAND (Germany)

20 March, 1992

J. Michael C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

Dear Mike:

The MSS for the sedimentation book have gone off to Cambridge Univ. Press. There are 24 chapters and all were in apple-pie order, except for Boulter's chapter! We discovered to our horror that your "Text-figures 1 & 2" (see enclosed copies of captions) were not in the Boulter folder! It's hard to understand, as we did a thorough check on illustrations before leaving USA in December. Is there some ready explanation, such as that they were far outsize, like your original color plates, and were therefore stored in a separate place? If that were the case, it might be worth my trying to phone a secretary at home to ransack my office. Truth to tell, we can't recall them at all. Would it be possible for you to regenerate these Text-figures from your files and send them directly to C.U.P.?

There is also a nagging problem about your plates--neither you nor I was satisfied with the quality of the B&W photos--and, of course, there's the question of the new Plate 7, which I redid to replace a couple of others, using color photos from the original plates. Catherine Flack of Cambridge Univ. Press, who is the responsible person, may contact you about these problems.

I have an appointment week after next in Berlin with Greuter to discuss NCU and related matters. Wish I could pick your brain first!

All the best.

Yours very truly,

Alfred Traverse
Professor of Palynology

c: Catherine Flack

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19 May, 1992

Dr. M.C. Boulter
Environmental Sciences
Polytechnic of East London
Romford Road
London, England E15 4LZ

Dear Mike:

Copy of letter to Greuter is self-explanatory. I hope it is also substantially correct.

I hope you have, or soon will have, organized the letter to Senator Erhardt in Berlin. That is an important piece of paleobotanical charity for you to accomplish!

It was great to see you again. I believe you should feel good about that PFR job--a memorable piece of work.

All the best.

Yours very truly,



Alfred Traverse

AT/et
encl: copy of letter to Greuter
cc: Chaloner

Now that the Cold War, perhaps, is over, the main problems facing humanity concern the environmental management of our planet. This proposal is to help understand patterns of climatic change over the last 50 million years, particularly from evidence in the North Atlantic region.

7.1 Academic and Social Purpose

Most plants are sensitive to changes in temperature, sea level, ocean currents etc.. Their evolutionary and migratory changes through long periods of time can be monitored to help reconstruct these important environmental factors. The results need to be presented as part of a package to increase a general awareness of real environmental issues.

7.2 Access to Scientific Data

Evolutionary and migratory data of extinct plants over the last 50 million years are enormous and hidden in obscure libraries and museums. This proposes to organise its transfer to internationally accessible computer databases.

7.3 London 1993

The University of East London hosts and manages the International Organisation of Palaeobotany's Plant Fossil Record database. This is the basis for this proposed influx of new data and techniques of analysis. The hardware and staff are here. It is the international archive.

There is previously unavailable data and ideas from our academic colleagues in eastern Europe which must be incorporated with our developing systems. The June 1992 conference in Rio showed how urgent it is to begin to understand patterns of climatic change.

7.4 General Approach

The workshop aims to stimulate two on-going processes within the relevant international academic community:

to make available existing knowledge in an openly available database

to use these data for analysis, test and improvement for a reunion deadline in three years.

It would be structured as concise lectures, group seminars and workshops around computer screens

Reconstruction of North Atlantic climate change using extinct
plant data - a proposed NATO Advanced Research Workshop

London 5 days late summer 1993

The following topics may be covered by the specialists who
receive this draft.

- | | |
|--|--|
| 1. Recent plant tolerences | J. Dransfield, Kew* |
| 2. Archaeobotany | G. Hillman, London
C. Heusser, New York |
| 3. Pleistocene | J. Birks, Bergen
L. Stuchlik, Krakow
R. Harland, Keyworth*
W. Zagwijn, Haarlem*
R. West, Cambridge
L. Heusser, New York |
| 4. Tertiary megafossils | D. Dilcher, Gainsville
L. Hickey, New Haven
J. Bassinger, Saskatoon
M. Akhmetiev, Moscow*
G. Zhilin, St. Petersburg*
A. Boyd, Copenhagen
Z. Kvacek, Prague |
| 5. Tertiary marine microfossils | S. Manum, Oslo
G. Williams, Dartmouth*
P. Mudie, Dartmouth*
M. Head, Toronto |
| 6. Tertiary pollen and spores | W. Krutzsch, Berlin
O. Dragastan, Bucharest
M. Fotjanova, Moscow*
M. Schuler, Strasbourg
A. Traversè, Penn State
J. Pais, Lisbon |
| 7. Methods of analysis | N. Shackleton, Cambridge
J. Wolfe, Denver*
J. Thiede, Kiel |
| 8. Demonstrations of database hardware, software | P. Woolliams, London |

* works at a research institute; others are at universities

POLYTECHNIC OF EAST LONDON

Division of Environmental Sciences
Head: Professor M C Boulter PhD FGS

Romford Road
London E15 4LZ
Tel: 081-590 7722 Ext
Fax: 081-519 3740



3rd June 1992

Dear Colleague,

I am making an application to NATO's Scientific Affairs Division in Brussels to support an Advanced Research Workshop entitled 'Reconstruction of North Atlantic climate change using extinct plant data.'

It is aimed at the two new priorities for NATO's scientific programmes: to have 20% participation from specialists in eastern Europe, and to investigate global environmental changes of the past. My justification of the proposal is enclosed.

If the application is successful are you please able to participate as a key speaker? The kind of contribution I have in mind is shown on the enclosed papers. Your travel and subsistence costs would be paid by NATO.

If you are able to participate in London next September 1993 please let me know as soon as possible. I will also need a copy of your curriculum vitae. Please make suggestions of how additional specialists and topics can improve the outline programme. The closing date for the application is July 15th and NATO's decision is announced within three months.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'M.C. Boulter', written in a cursive style.

M.C. Boulter

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8 July, 1992

Dr. Michael C. Boulter
Department of Biological Science
Polytechnic of East London
Romford Road
London E15 4LZ, U.K.

Dear Mike:

Just back from Frankfurt. In the pile of stuff that arrived too late to be forwarded was yours of 3 June, re the Advanced Research Workshop for September, 1993. Sounds like a great idea.

In connection with current research projects, I need to take part in the Triassic Symposium in New Mexico in October, 1993. My palynology course runs in Fall Semester. I know that even if I could prepare a lecture for both meetings (which is doubtful), there is no possibility of two long trips at that time. (The International Botanical Congress in Tokyo is also at about the same time!) So, I guess I have to say no to the ARW.

Best regards. It was great to see you in UK last Spring.

Yours very truly,

Alfred Traverse

AT/et

PALAEOBIOLOGY RESEARCH UNIT
Professor M C BOULTER PhD FGS Leverhulme Research Fellow
Tel: 081-590 7722 ext.
Fax: 081-519 3740
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UNIVERSITY of
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ROMFORD ROAD
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Al:

Is it too late for
you to consider attending
this ARW. I believe
you'll be in the UK
later that month

: Mike
12 ⁷/_x 93

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3 November, 1993

Michael C. Boulter
Palaeobiology Research Unit
University of East London
Romford Road
London E15 4LZ, UK

Re: Page proofs for Sedimentation of Organic Particles

Dear Mike:

Betty and I have proof-read the entire book, using the only method that really works: one person (Betty) reading aloud from the typescript as submitted, the other person (AT) following each word of the typesetters' proof with a ruler. I hope we have caught all errors. I do not wish to bore you with unnecessary details, but, as most of you discovered, it is clear the CUP had a computer-glitch of some sort: e.g., words run together, hyphens omitted.

After our go-through of the book, we went back to compare our markings with yours. Thank you for your proof-reading job. You caught some things we missed--and vice versa, e.g., that the end of your biblio was misalphabetized and there were serious glitches in your Table 11.1. Because you might want to put it in your records, I report that Caratini, also an author for the book, writes "palynofaciès", i.e., with accent as shown, and "recherche" without accent, every time. All has now gone off to CUP, and we await the next development (for us probably the index and the final proofs; for you, the book itself). Thanks very much for your patience and encouragement.

Re the meeting--I should have been there (looks great!), but our semester is going full blast (20 in palynology--4 over the limit). The week including 26 Nov. is largely holiday (Thanksgiving), and with a weekend on each end of it---but you guys are going to blow Margaret's carefully arranged cover if you aren't circumspect.

Regarding the big color plate originals of your figures (remember?)--do you want them back?

Yours very truly,

Alfred Traverse

AT/et

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FAX MESSAGE SHEET

DATE: 18.11.93

NO. OF PAGES (incl. message sheet): 1

FOR THE ATTENTION OF:

Alfred Traverse

COMPANY/ORGANISATION:

Dept of Geosciences

FAX NUMBER:

814 863 7823

FROM:

Prof M C Boulter

DEPARTMENT:

Faculty of Science

SPECIAL INSTRUCTIONS

Many thanks for your letter
of 3.11.93. Yes I do please, want the
plate originals

IF ALL PAGES ARE NOT SATISFACTORILY RECEIVED PLEASE TELEPHONE

081-590-7722 Extension

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E-Mail: traverse@ems.psu.edu

17.October.1996

Prof. M. C. Boulter
University of East London
Romford Road
London E15 4LZ, U. K.

Dear Mike:

Just a fan letter to record that I GREATLY enjoyed your descriptions of the evolution-of-plants exhibits at Kew and at Stockholm. Great fun to read. The best such things I have experienced are at the Smithsonian (though it is heavy on the hobbyhorses of the guys who set it up) and at the Field Museum in Chicago (Herenden and Crane did a good job). The living fossil garden at the fantastic museum in Drumheller, Alberta, should also be mentioned, though it is a bit different in nature.

Hope you are flourishing. Betty joins me in best wishes to you and yours. I enclose a few reprints. I never get around to general mailouts.

Yours very truly,

Alfred Traverse

enclosures:reprints