

# CORRESPONDENCE

## Scientific Salaries

SIR,—Your editorial comment on the dispute on the pay of scientists in government service (*Nature* 232, 76; 1971) would have been more informative had it stated clearly that the pay claim on behalf of the scientists asked for no more than parity with other comparable classes within the service, all of whom have had increases this year. Despite the demanding and creative work and extra academic qualifications of many officers in scientific grades, their pay until recently has been tied to that of the administrative grades. But, as one result of the present pay research exercise, Principal Scientific Officers (an important body of scientists among those that were offered no increase and now paid in the course of nine annual increments from between £2,820 and £3,902 a year) were henceforth to receive between £430 and £749 less than their colleagues in administration. Hence some of the anger to which you refer.

The result is to demote science relative to other professions. Quite apart from our personal dissatisfactions, we are apprehensive lest minds of high calibre at schools and in universities are discouraged from following a scientific career. Science, technology and the country will suffer.

Yours faithfully,

NIGEL BATEMAN

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## BNF Subscriptions

SIR,—Some comment seems necessary on your remarks in the report on the discussion by the House of Commons Select Committee on Science and Technology of the work of the Department of Trade and Industry (*Nature* 231, 208; 1971). You refer to the deficit for 1970 of £36,618 in the accounts of the British Non-Ferrous Metals Research Association and the decision of our Council to raise subscriptions by 25%. This deficit should be viewed in the context of a total income for the year of almost £700,000. The short-fall in a period of rapidly rising costs was about 5% of the budget and follows a series of modest surpluses.

The decision to raise subscriptions was taken by our Council several months ago and was a reflexion of the increased costs of providing services to members since the last general increase in subscription rates in 1967. There must be few concerns

successful in resisting price increases over such a long period. It has been possible at the BNF partly because of the continuing success in recruiting members from overseas (they now account for one-third of membership subscriptions) and partly through a policy of accepting more contract work. Contract income, including contracts for groups of members, reached £370,000 in 1970.

Yours faithfully,

E. C. MANTLE

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## Acknowledgments

SIR,—Your article (*Nature*, 232, 75; 1971) was in my opinion priceless but the subject does pose some important questions, especially when costs of publications are rising so rapidly and of necessity economies have to be made.

Of course the editors of *Nature* have the power to demand the elimination of all fancy "acknowledgments"—if no agreement then no publication. In my experience from both sides of the fence, most authors will suffer almost any indignity as long as their contributions are accepted for publication. The omission of the names Rosemary Smith and Fred Brown therefore would not cause undue alarm; rather such an editor's admonition provides an adequate excuse under the circumstances. "Sorry folks but the editor insists; you know what the blighters are like, etc., etc.". Nevertheless, what does one do with a grant body which lays down that any publication must include an acknowledgment of the source of any financial support. Again some heads of departments (so I'm told) probably expect at the very least a mention, even for their hospitality. Sometimes they may even deserve it too. Such reference is probably a lesser evil or less hypocritical than including superfluous names on the title page.

Perhaps, however, common sense and compromise can at least prevail. When papers are particularly long then "acknowledgments" of grander proportions, if genuine, would seem to be justified. With short papers, found for example in *Nature*, brevity would seem to be in order.

Finally, a plea for the technician. Many do assist wholeheartedly and very substantially in research projects; indeed as scientific research becomes more

complex and techniques more specialized, highly trained technical experts are now becoming indispensable. Though most technicians presumably do not participate in writing research papers, in fact many individuals doubtless hardly understand parts of them, and even though everyone knows that they get paid, the very least authors can do is politely acknowledge important contributions by them. The cost in relative terms is small but even in this day and age appreciation of one's colleagues' efforts should still not be amiss.

Yours faithfully,

HAROLD FOX

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University College London,  
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## Neolithic *Spondylus*

SIR,—I should like to refer to the interesting article by Shackleton and Renfrew<sup>1</sup> on the use of the 18/160 technique with shells of *Spondylus gaederopus* L. in the investigation of Neolithic trade routes.

As far as the genus *Spondylus* L. is concerned, it is a typical tropical form, one of the representatives of which, *S. gaederopus*, is known to inhabit Mediterranean waters as well. Its history in the different Mediterranean basins shows that while in the West<sup>2</sup> it is known from as far back as the Miocene and the Pliocene, we do not find it in the eastern basins before the Tyrrhenian Period, where it is recovered in various outcrops in Cyprus<sup>3</sup>, the Dodecanese Islands and so on.

*S. gaederopus* is not found today in the Black Sea, owing to the special properties of this water mass, which are mentioned by Shackleton and Renfrew, and are quite different from those of the Mediterranean. According to the authors themselves, the isotopic composition of the Black Sea and the Mediterranean waters was even more different in the past than today, because of the greater influence of the glacial meltwater. If so, the probability of finding such a tropical to sub-tropical organism in the Black Sea, from its last opening and connexion with the Mediterranean some 8,000 to 10,000 years ago<sup>4</sup>, is even more unexpected. On the other hand, it is possible that during another warm period with a high sea level in the Tyrrhenian (some 115,000 to 140,000 years ago)<sup>5</sup> when even *Strombus bubonius* Lmk. intruded

into the Black Sea<sup>6</sup>, we might expect to find *S. gaederopus* also. However, according to Shackleton and Renfrew<sup>1</sup>, the radiometric age of the examined *Spondylus* shells is only 2,500 BC and 4,000 BC.

It is therefore concluded that, at least for this special case, the <sup>18</sup>/<sub>16</sub>O method is irrelevant. Finally, *S. gaederopus* lives today along various Mediterranean coasts (Algeria, France, Italy, Israel, and so on) cemented to

some rocky substrate, and it would probably be very difficult to tell from the isotopic composition the exact geographical location (that is Aegean or Adriatic) where the samples were collected.

Yours faithfully,

S. MOSHKOVITZ

Department of Geology,  
Hebrew University of Jerusalem

- <sup>1</sup> Shackleton, N., and Renfrew, C., *Nature*, **228**, 1062 (1970).
- <sup>2</sup> Bucquoy, E., Dautzenberg, Ph., and Dollfus, G. (B.D.D.), *Les Mollusques marines de Roussillon* (1882-1898).
- <sup>3</sup> Moshkovitz, S., in Bear, L. M., *Palaeontological Notes, Ann. Rep. for the Year 1962* (Geol. Surv. Dept., Cyprus).
- <sup>4</sup> Bukry, D., King, S., Horn, M. K., and Manheim, F. T., *Nature*, **226**, 156 (1970).
- <sup>5</sup> Butzer, K. W., *Encyclopedia of Oceanography* (edit. by Fairbridge) (Reinhold Publ. Corp., 1966).
- <sup>6</sup> Caspers, H., *Geol. Soc. Amer. Mem.* **67**, I, 801 (1957).

## Announcements

### University News

Professor P. M. Maitlis, McMaster University, has been appointed to the chair of inorganic chemistry, University of Sheffield.

### Appointments

Mr W. A. Cumming and Dr J. D. Keys have each been appointed assistant vice-president (laboratories) of the National Research Council of Canada.

Graham Morris, manager of the Education and Training Division of ICL, has been appointed deputy president of the British Computer Society for 1971-72.

Sir Ronald Baskett has been appointed secretary of the Agricultural Research Council, in succession to Sir Gordon Cox.

Mr D. J. Parkinson has been appointed under secretary, and Dr C. C. Webster has been appointed chief scientific officer.

### Miscellaneous

The Academy of Sciences of the USSR has been awarded the International Galaber Prize for the research projects carried out by the automatic spacecraft Luna-16.

Dr F. B. A. Giwa, University of Ibadan, has been awarded the first World Meteorological Organization Research Award for Regional Association I (Africa), in recognition of his work on the effect of wind on the resonant period of the atmosphere.

### Erratum

IN the article "Australia's Caenozoic Drift" by J. G. Jones (*Nature*, **230**, 237; 1971), the first sentence of the penultimate paragraph should read "A final problem which Australia's Caenozoic drift may elucidate is the origin of the Coral Sea".

### British Diary

517th Meeting (two days) Biochemical Society, in the Appleton Tower, University of Edinburgh, George Square, Edinburgh. Biological Hydroxylation Mechanisms (symposium); and meeting for the presentation of free communications.

### Reports and Publications

not included in the monthly Books Supplement

#### Other Countries

Carte Pédologique de la France au 1/100.000. Argeles-sur-Mer—Perpignan, L. 24 et L. 25. Notice explicative par J. Servant. Pp. 114. (Versailles: Institut National de la Recherche Agronomique, 1970.) 53.75 francs. [274]

Nederlandse Vereniging voor Weer- en Sterrenkunde. Observations of Variable Stars, July-December 1970. (Report No. 19.) Pp. 7. (Groningen, Netherlands: Kapteyn Astronomical Laboratory, 1971.) [274]

CERN—European Organization for Nuclear Research. CERN 71-8: Spin Formalisms. By S. U. Chung. (Lectures given in the Academic Training Programme of CERN 1969-1970. Pp. v+81. (Geneva: CERN, 1971.) [274]

National Academy of Sciences; National Academy of Engineering; National Research Council. Organization and Members 1970/1971. Pp. 243. (Washington, DC: National Academy of Sciences; National Academy of Engineering, 1970.) [284]

NINDS Research Profiles: 1970—Summary of Research at the National Institute of Neurological Diseases and Stroke. (US Department of Health, Education and Welfare. Public Health Service. National Institutes of Health.) Pp. vii+57. (Washington, DC: Government Printing Office, 1970.) \$0.35. [284]

Health Sciences in Israel—Institutions and Scientists. Edited by Betty Davies. Pp. x+285. (Jerusalem: Israel Journal of Medical Sciences, 1971.) \$7. [284]

US Department of the Interior: Geological Survey. Professional Paper 537-E: Chronological Narrative of the 1959/1960 Eruption of Kilauea Volcano, Hawaii. By D. H. Richter, J. P. Eaton, K. J. Murata, W. U. Ault, and H. L. Krivoy. Pp. vi+73. Water-Supply Paper 1878: Water Resources of Racine and Kenosha Counties, South-eastern Wisconsin. By Rickard D. Hutchinson. Pp. v+63+4 plates. (Washington, DC: Government Printing Office, 1970.) [284]

US Department of the Interior: Geological Survey. Water-Supply Paper 1879-C: Ground-Water Aspects of the Lower Henrys Fork Region, Eastern Idaho. By E. G. Crosthwaite, M. J. Mundorff and E. H. Walker. Pp. iii+22+1 plate. \$0.70. Water-Supply Paper 1895-B: Summary of Data on Chemical Quality of Streams of North Carolina, 1943-67. By Hugh B. Wilder and Larry J. Slack. Pp. iv+236+2 plates. (Washington, DC: Government Printing Office, 1970 and 1971.) [294]

US Department of the Interior: Fish and Wildlife Service. Bureau of Sport, Fisheries and Wildlife. National Wildlife Refuges. Pp. 28. \$0.35. Wildlife Research: Problems, Programs, Progress, 1968. Pp. viii+112. \$1.25. (Washington, DC: Government Printing Office, 1970.) [294]

Research Council of Alberta. Annual Report 1970. Pp. 75. (Edmonton: Research Council of Alberta, 1971.) [294]

Smithsonian Contributions to Paleobiology. No. 3: Paleozoic Perspectives—a Paleontological Tribute to G. Arthur Cooper. Edited by Thomas Durro, Jr. Pp. xiv+390. \$4. Smithsonian Contributions to Zoology. No. 69: Biostatistical Programs in BASIC Language for Time-Shared Computers. Coordinated with the book "Quantitative Zoology". By James A. Peters. Pp. 46. \$0.50. No. 77: Bredin-Archbold-Smithsonian Biological Survey of Dominica—Borrowing Sponges, Genus *Siphonodictyon* Bergquist, from the Caribbean. By K. Rützler. Pp. 37. \$0.50. (Washington, DC: Smithsonian Institution Press, 1971. For sale by US Government Printing Office.) [294]

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