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PERSATUAN GEOLOGI MALAYSIA  
(GEOLOGICAL SOCIETY OF MALAYSIA)

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\*\*\*\*\*

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- Khalid Ngah, Carigali, Petronas, Peti Surat 2444, Kuala Lumpur.

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## NOTA-NOTA GEOLOGI (GEOLOGICAL NOTES)

Carboniferous conodonts from Perak, Malaysia.  
(Konodont Karbon dari Perak, Malaysia).

I. Metcalfe, Jabatan Geologi, Universiti Malaya, Kuala Lumpur.

### Kesimpulan

Batukapur yang tersingkap disebelah timur kuari Pan-Malaysia Cement di Gunung Kanthan, menghasilkan fauna konodont yang menyerupai zon konodont *Idiognathoides noduliferus* - *Streptognathodus lateralis* dan mungkin berusia Namur A. Fauna ini dapat dihubungkan dengan fauna dari bahagian bawah batukapur Panching di Pahang (Metcalfe, dalam percetakan).

### Introduction

Carboniferous conodonts are little known in Southeast Asia. Lower Carboniferous conodonts have been reported from Vietnam (Fontaine & Workman, 1978), and Thailand (Baum, *et al.*, 1970, Hagen & Kemper, 1976 and Igo, 1973). Upper Carboniferous conodonts have been reported from Thailand (Baum, *et al.*, 1970) and Malaysia (Igo & Koike, 1968, Metcalfe, 1978 and in press, Lane *et al.*, in press).

This short paper presents preliminary results of conodont investigations at Gunung Kanthan, Perak, Malaysia, by the author. Lane *et al.*, in press) describe Devonian and Carboniferous conodonts from the J.K.R. quarry situated in the southern part of Gunung Kanthan (Grid ref. 934925)\*. The fauna discussed in this paper comes from the section exposed in the Pan Malaysia Cement quarry situated in the northern part of Gunung Kanthan (Grid ref. 934937)\*. Nine pilot samples of limestone were collected from the quarry (Fig. 1) and digested in 5% formic acid for conodont extraction.

### Conodont fauna

Four of the nine samples were found to contain conodonts. One of these (sample 563) towards the base of the section contained a good Middle Devonian fauna similar to the ones described by Lane *et al.*, (in press). The other three samples yielded Carboniferous conodonts. These were from vertically dipping, highly fractured, dark grey to black, bedded limestones in the eastern part of the quarry (see fig. 1). These fractured limestones appear to be in fault contact with the more gently dipping limestones to the west. The conodonts recorded from these three samples are given below. Full systematic descriptions of the faunas, including the Devonian forms, will be given in a future paper when more detailed sampling has been carried out.

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\* Grid refs. are given for 1 inch topographic Sheet 42, Series L7010, 1969.

Sample 568 (sample wt. 2.0 kgs)

<i>Idiognathoides?</i> sp.	2
TOTAL	2

Sample 569 (sample wt. 4.0 kgs)

<i>Gnathodus commutatus?</i> (Branson & Mehl)	3
<i>Gnathodus girtyi girtyi</i> Hass	3
<i>Gnathodus girtyi simplex</i> Dunn	10
<i>Gnathodus?</i> sp.	5
<i>Hindeodella ibergensis</i> Bischoff	1
<i>Hindeodella mehli</i> Elias	1
<i>Hindeodella</i> sp.	14
<i>Idiognathoides noduliferus inaequalis</i> Higgins	16
<i>Idiognathoides noduliferus noduliferus</i> (Ellison & Graves)	9
<i>Idiognathoides?</i> sp.	3
<i>Ligonodina typa</i> (Gunnell)	1
<i>Ligonodina</i> sp.	2
<i>Lonchodina</i> sp.	1
<i>Ozarkodina delicatula</i> (Stauffer & Plummer)	3
<i>Streptognathodus?</i> sp.	1
<i>Synprioniodina microdenta</i> Ellison	1
Gen. indet.	81
TOTAL	155

Sample 570 (sample wt. 2.0 kgs)

<i>Hindeodella</i> sp.	3
<i>Idiognathoides noduliferus inaequalis</i> Higgins	3
<i>Igiognathoides noduliferus noduliferus</i> (Ellison & Graves)	1
<i>Idiognathoides?</i> sp.	2
<i>Streptognathoides lateralis?</i> Higgins & Bouckaert	1
Gen. indet.	11
TOTAL	21

Age and correlation

The presence of *Idiognathoides noduliferus inaequalis*, *Idiognathoides noduliferus noduliferus* and *Streptognathodus lateralis?* indicates that the fauna represents the *Idiognathoides noduliferus* - *Streptognathodus lateralis* conodont zone of Europe (Higgins, 1975) and is of Namurian A age. Metcalfe (in press) describes conodont faunas of Namurian A age from the Panching limestone of Pahang in which he subdivides the *Idiognathoides noduliferus* - *Streptognathodus lateralis* zone into two subzones: a lower *Idiognathoides noduliferus inaequalis* - *Gnathodus commutatus* subzone and an upper *Idiognathoides noduliferus japonicus* - *Rhachistognathus* subzone. The fauna of sample 569 contains, along with idiognathoidids, *Gnathodus commutatus?*, *Gnathodus girtyi girtyi* and *Gnathodus girtyi simplex*. The association of these gnathodids with idiognathoidids is characteristic of the *Idiognathoides noduliferus inaequalis* - *Gnathodus commutatus* subzone which is considered to be of H<sub>1b</sub> age (Namurian A), (Metcalfe, in press). Sample 568 contains two specimens

tentatively assigned to *Idiognathoides* which makes the fauna Upper Carboniferous in age. A more precise age determination is not possible for this sample. The fauna of sample 570 is probably of a similar age to that of 569 but lacks gnathodids (possibly due to the paucity of fauna).

The faunas described here compare very well with faunas from the lower part of the Panching limestone of Pahang; a correlation is thus suggested.

Lane *et al.*, (in press) describe two small faunas of Carboniferous age from the J.K.R. quarry of Gunung Kanthan. One of these they assign to the late Viséan or early Namurian and the other to the Westphalian A. The late Viséan or early Namurian age for the first fauna is based on a single specimen of *Gnathodus girtyi* and it is suggested by Lane *et al.*, (in press) that the particular variant of *Gnathodus girtyi* indicates a probable late Viséan age. The specimen illustrated by them (Plate 2, fig. 13) appears to be very similar to forms of this species which occur with idiognathoidids in the Panching limestone of Pahang and may well in fact be more likely to be of early Namurian rather than Viséan age. The second fauna of Lane *et al.*, consists of a single specimen of *Declinognathodus noduliferus* (*Idiognathoides noduliferus* of this paper). The particular morphotype of this species is said by Lane *et al.*, (in press) to indicate a Westphalian A age. The specimen illustrated by them (Plate 2, fig. 12) is *Idiognathoides noduliferus noduliferus* and this subspecies occurs from Namurian A (H<sub>1a</sub>) to Namurian B (R<sub>1b</sub>) in Europe. It is considered that a Namurian rather than a Westphalian A age is more likely for the J.K.R. quarry specimen.

### Conclusions

Limestones exposed in the eastern part of the Pan Malaysia Cement quarry, Gunung Kanthan, yield conodont faunas representative of the *Idiognathoides noduliferus* - *Streptognathodus lateralis* conodont zone and are interpreted to be of Namurian A age. The faunas correlate well with those from the lower part of the Panching limestone of Pahang (Metcalf, in press).

### References

- Baum, F., Braun, E., Hahn, L., Hess, A., Koch, K.E., Kruse, G., Quarch, H., and Siebenhuner, M., 1970. On the geology of northern Thailand. Beih. geol. Jb., 102, 1-24.
- Fontaine, H., and Workman, D.R., 1978. Review of the geology and mineral resources of Kampuchea, Laos and Vietnam. In Nutalaya, P. (Ed.) Proceedings of the Third Regional Conference on Geology and Mineral Resources of Southeast Asia, Bangkok, 1978, 541-603.
- Hagen, D., and Kemper, E., 1976. Geology of the Thang Pha Phum area (Kanchanburi province, western Thailand). Geol. Jahrb. Reihe B., 21, 53-91.
- Higgins, A.C., 1975. Conodont zonation of the late Viséan - early Westphalian strata of the south and central Pennines of northern England. Bull. geol. Surv. Gt. Br., 53, 1-90.

- Igo, H., 1973. Lower Carboniferous conodonts from Ko Yo, Songkla, Peninsular Thailand. Geol. Palaeont. Southeast Asia, 12, 29-42.
- Igo, H., and Koike, T., 1968. Carboniferous conodonts from Kuantan, Malaya. Geol. Palaeont. Southeast Asia, 5, 26-30.
- Lane, H.R., Muller, K.J., and Ziegler, W., (in press). Devonian and Carboniferous conodonts from Perak, Malaysia. Geologica et Palaeontologica.
- Metcalf, I., 1978. Palaeontology and age of the Panching limestone, Pahang, West Malaysia. Geology and Palaeontology of Southeast Asia Symposium, Tsukuba '78, Abstracts, 10-11.
- \_\_\_\_\_, (in press). Upper Carboniferous conodont faunas of the Panching limestone, Pahang, West Malaysia. Palaeontology.

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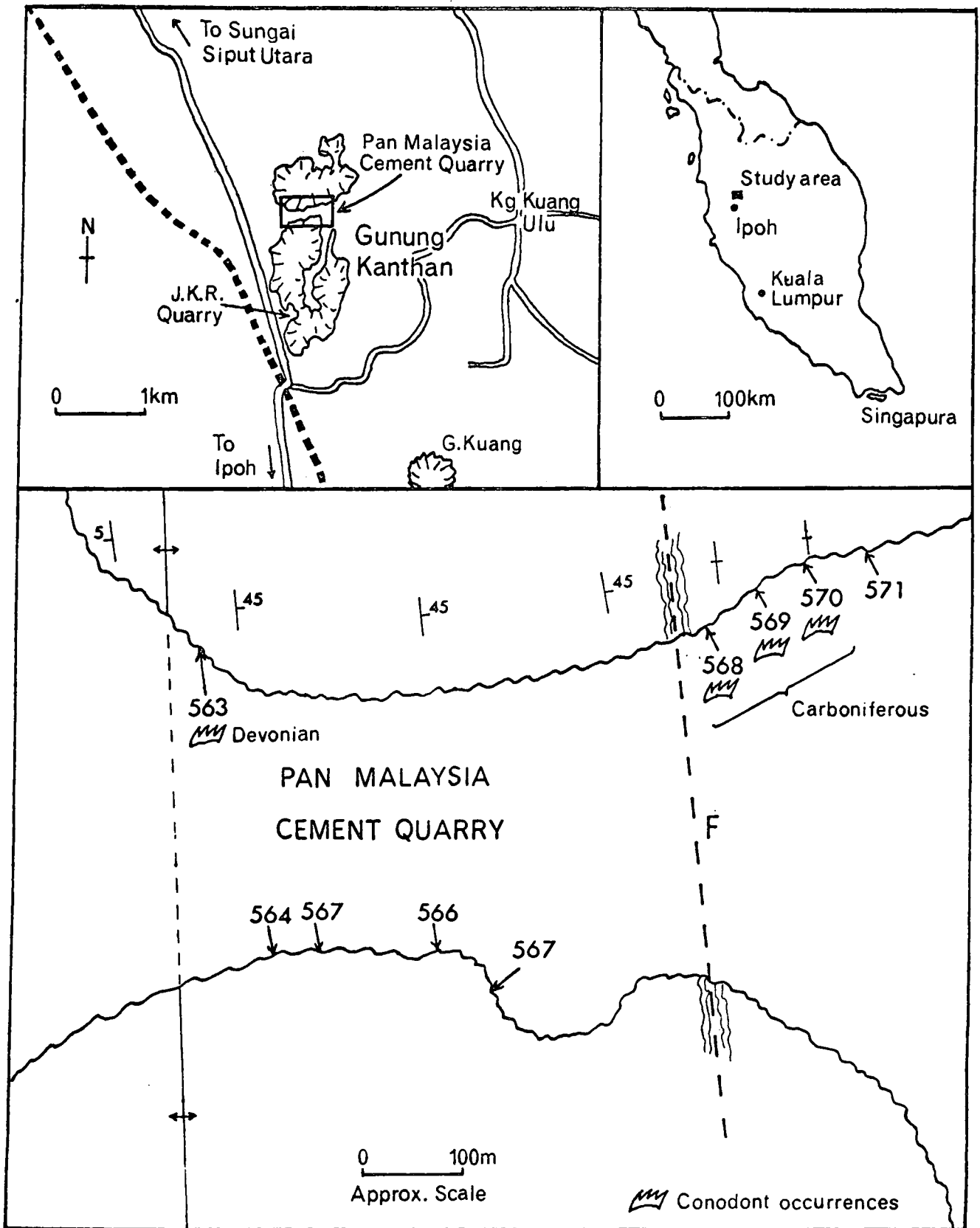


Fig. 1. Sketch map showing the locations of samples at the Pan Malaysia Cement Quarry, Gunung Kanthan, Perak.

## MESYUARAT PERSATUAN (MEETINGS OF THE SOCIETY)

Prof. A. Seilacher, June 20th. Paleocology and Biostratigraphy of Liassic Oil Shales in Germany.

Prof. Seilacher is on sabbatical leave and is attached to the Department of Geology, University of Malaya from 9th June to 30th 1979. Although he was preoccupied with his own project, he managed to deliver a talk to the Society, apart from a series of lectures he gave to the students of the University of Malaya. His enlightening talk, which was well attended, was delivered at the Lecture Hall, Geology Department, University of Malaya. Below is a summary of his talk.

*The stagnant basin model, which would account for the preservation and the ecologic spectrum of Posidonia Shale fossils, has recently been challenged on the grounds of paleocurrent features and supposedly benthic communities. A composite model, in which stagnant conditions were episodically interrupted by high energy events, may possible solve the dilemma.*

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## BERITA-BERITA PERSATUAN (NEWS OF THE SOCIETY)

**Maklumat lanjut mengenai Young Geoscientists Publication Award.  
(Further information on Young Geoscientist Publication Award)**

In Vol. 1, no. 1 of the Warta Geologi, brief notes were given on the Young Geoscientist Publication Award. Below are relevant extracts of the Rules and Regulations, a complete copy of which is available on request from the Secretary.

*Eligibility*

- Restrictions on awards* 5. (1) *No person shall be considered for the award unless he satisfies the Board:*
- (a) *That he is not more than thirty years of age at the time of publication of the paper or the time the paper was accepted for publication;*
  - (b) *that he is normally resident in Malaysia;*
  - (c) *that he belongs to any one of the membership classes of the Society;*
  - (d) *that the paper was published or had been accepted for publication in the previous calendar year, in which case written proof from the publisher must be shown;*
  - (e) *that the paper has been published or accepted for publication in any one of the Society's series of publications or in international journals.*



## PART IV

## THE AWARD

- Award Fund* 6. (1) *The award shall be made from the interest of an award fund to be established and placed on fixed deposit.*
- Nature of award* 7. (1) *The award shall be given annually and the Board shall view each potential nominee case by case, subject to subsection 4.(5).*
- (2) *The award will consist of a certificate and a sum of money not exceeding the annual interest accruing to the Fund or a medal of equivalent value.*
- (3) *The award may be given to the same person more than once provided the material is substantially dissimilar from the previous award-winning publication and that the author still qualifies under subsection 5.(1).*

## PART V

## PROCEDURE

- Award nominations* 8. (1) *Nominations for an award must be made by a member who is not a Student or Associate Member.*
- (2) *An author cannot nominate himself for the award.*
- (3) *The written consent of the author is required.*
- Consent*
- Best paper* 9. (1) *The award, in the opinion of the Board, shall be made to the author of the best paper in geology about Malaysia or the region and/or should be of general interest to the local community of geoscientists.*
- Joint authorship* (2) *Papers with joint authorship may be considered, if a statement as to the relative responsibility of the authors, signed by all the authors, is attached.*
- (3) *In the case of joint authorships, the Board may make the award to one author, or to two or more authors, provided these qualify under subsection 5.(1).*

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Jualan Buletin (Package deal for Bulletins)

The Society wishes to announce the introduction of a new package deal to include the latest bulletins available from the Society.

Package deal for bulletins (while stocks last).  
Postage extra at cost.

Package deal I: Bulletins 1 to 7 plus Field Guide 1

Student members	:	M\$10.00
Other members	:	20.00
Non-members	:	35.00

Package deal II: Bulletins 8 to 10

Student members	:	M\$19.00
Other members	:	21.00

Please note that Package Deal offer is limited to one order per member only. No limit on the number of orders from non-members.

Order should be addressed to: The Hon. Assistant Secretary  
Geological Society of Malaysia  
c/o Geology Department  
University of Malaya  
Kuala Lumpur 22-11, MALAYSIA.

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Bahan-bahan baharu dalam Perpustakaan (New Library additions)

The following journals have been added to the Society's Library and are available to members at the Klompe Reading Room at the Department of Geology, University of Malaya, Kuala Lumpur.

1. Scripta Geologica, no. 47 & 48, 1978.
2. AGID news, nos. 16-18, 1978 & 1979.
3. Geological report of the Hiroshima University, nos. 1-21, 1951-78.
4. Journal of Science, Hiroshima University, series C (Geology and Mineralogy), vols. 1-7, 1951-77.
5. Dunia perniagaan, National Library Singapore, 1979.
6. Turbidite und Olisthostrome - sedimentationsphanomene des Werra-Sulfats (Zechstein 1) am Osthang der Eichsfeld - Schwelle im Gebiet des Sudharzes by Rudolf Meier, 1977.
7. Deformation und metamorphose von Gesteinen 1, 1977.
8. Rift activity in the eastern Pacific by Elfriede Bankwitz & P. Bankwitz.
9. National Geophysical Research Institute, Annual Report, 1977-78.
10. Imm, Trans/Sect. B., vol. 88, 1979.
11. Commonwealth Geological Liaison Office, Newsletter nos. 4 & 5, 1979.
12. Robertson Research International News, Jan, 1979.
13. IMM Bulletin nos. 870 & 871, 1979.
14. National Library Singapore. Adult reference collection accessions list, April & May, 1979.
15. IMM Trans/Sect. C. v. 88, March 1979.
16. Mineralogica Polonica, v. 8, nos. 1 & 2, 1977.
17. Oklahoma Geology notes, v. 38, nos. 4-6, 1978.
18. Memoir Ehime University, vol. VIII, no. 3, 1978.
19. Jour. Fac. Science, University of Tokyo, v. 19, no. 5, 1978.
20. Acta Palaeontologica Sinica, v. 18, no. 2, 1979.

21. Bull. National Science Museum, series C., v. 5, no. 1, 1979.
22. National Library Singapore, Non-fiction and new arrivals, May - April, 1979.

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### Keahlian (Membership)

The following persons have joined the Geological Society of Malaysia.

#### Ahli Penoh (Full Members)

1. Gerry van Klinken, Pusat Pengajian Fizik, Universiti Sains Malaysia, Pulau Pinang.
2. Merton E. Simons (Dr), P.O. Box 149, Killiney Road, Singapore 9.
3. Bruce W. Chappell (Dr), Geology Dept., Australian National University, P.O. Box 4, Canberra, Australia.
4. Stan Donnelly, P.O. Box 45, Nakhon Sri Thammarat, Thailand.
5. Lindsay A. Newnham, Renison Ltd., P.O. Box 20, Zeehan, Tasmania.

#### Ahli Pelajar (Student Members)

1. Lim Kock Hooi, 176, Jalan 17/5, Petaling Jaya, Selangor.
2. Tee Thian San, 74, Jalan 20/7, Petaling Jaya, Selangor.

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### Pertukaran Alamat (Change of address)

The following members have informed the Society of their new addresses:

1. C.K. Burton, 6 Rosebank Road, Countesthorpe, Leicester, U.K.
2. Hamadi b. Che Harun, Jabatan Penyiasatan Kajibumi, Wisma Persekutuan, Jalan Ayer Molek, Johor Bahru, Johor.
3. K.F.G. Hosking, 1B, Penlu, Tuckingmill, Camborne, Cornwall TR14 8NL, England.
4. K. Kawada, 135, Hisamoto, Takatsu-ku, Kawasaki-shi, Japan.  
(after Nov. 1979: Higashi, 1, 1-3, Yatabe-machi, Tsukuba-gun, Ibaragi-ken, Japan).
5. James P.K. Lau, Exploration Logging of Australia, Inc., 43 Planet Street, Carlisle, W. Australia 6101.
6. Lee Swee Guan, Petronas Carigali Sdn. Bhd. P.O. Box 2444, Kuala Lumpur.

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## BERITA BERITA LAIN (OTHER NEWS)

International Conference on Aridic Soils

International Society of Soil Science Commissions V and VI under the auspices of Israel National Council for Research and Development and Israel Ministry of Agriculture, Agricultural Research Organisation, will hold an International Conference on Aridic Soils - Properties, Genesis and Management from March 29 to April 4 1981 in Jerusalem, Israel. Particular attention will be given on the following:

1. Translocations and transformations in aridic soils; gypcrete and calcrete forming processes.
2. Weathering processes in hot and cold deserts.
3. Soil properties and distribution in relation to desert landforms.
4. Classification and evaluation of soil resources in arid regions; management of calcareous and gypsiferous soils.

Further information may be obtained from:

Dr. D.H. Yaalon  
Dept. of Geology  
The Hebrew University of Jerusalem,  
Jerusalem 91000, Israel.

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National Symposium on the Availability of Strategic Minerals

The Institution of Mining and Metallurgy in collaboration with the Fellowship of Engineering will hold the above symposium on Nov. 20 and 21, 1979 in London. Papers invited include topics on 'Definition of 'strategic' minerals and the means currently available to the U.K. Govt. of identifying strategic sources and requirements', 'Economics of stockpiling', 'Problems faced by traders and consumers', 'A supplier's viewpoint' and 'Approaches adopted by other countries'.

Contact: The Secretary  
Institution of Mining and Metallurgy  
44 Portland Place  
London W1N 4BR, U.K.

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Buku-buku baharu (New books)

W.J. Vermoerd, ed., Mineralisation in metamorphic terraines. Sp. Publ. no. 4 of the Geol. Soc. of South Africa.

The book is the outcome of a symposium held at the University of Stellenbosch, South Africa, in 1975. It is mainly devoted to the results of investigations into the relationship between ore deposits and the metamorphic belts in the northwest Cape Province and the Murchison

Range stibnite deposits.

Order: Van Schaik's Bookstore (Pty) Ltd.  
 P.O. Box 724  
 0001 Pretoria  
 Republic of South Africa.  
 Price: US\$18.00.

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### Tsunami Data

Tide gauge records, photographs and seismograms associated with the occurrence of tsunamis are now available from World Data Centre A for Solid-Earth Geophysics. Details and order from:

World Data Centre A for Solid-Earth Geophysics  
 National Geophysical and Solar Terrestrial Data Centre  
 National Oceanic and Atmospheric Administration  
 Boulder, Co. 80303, U.S.A.

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### Kalender (Calendar)

Under this column the Society will note coming events on meetings, courses and symposia of interest to members. Date in parentheses gives the issue of Newsletter containing more information pertaining to the event:

#### Other events

##### 1979

- 1979 : 14th Congress of the Pacific Science Association USSR. B.G. Gafurov, Chairman of the Soviet National Pacific Committee, Academy of Sciences of the USSR, Moscow. (Jul-Aug 1977).
- Jul 28 : International Symposium on Soil Sampling, Singapore. Mr. Hioshi Mori, Kori Geotechnique Inc., Room 1005, Sunheim Tamachi, 3-2-9, Kaigan, minato-ku, Tokyo, Japan.
- Sep 17 - 22 : AAPG - SEG stratigraphic interpretation of seismic data. AAPG Education Dept., P.O. Box 979, Tulsa, Oklahoma 74101, USA.
- Sep 18 - 21 : CCOP/SOPAC Symposium on 'Petroleum Potential in Island Arcs, Small Ocean Basins, Submerged Margins, and Related Areas, Suva, Fiji'. CCOP/SOPAC Technical Secretariat, c/c Mineral Resources Dept., Private Main Bag, GPO, Suva, Fiji. (Jan-Feb 1979).
- Oct 15 - 18 : Law of the Sea Institute: Thirteenth Annual Conference. Law of the Sea Institute, University of Hawaii, 2540 Dole Street, Holmes 401, Honolulu, HI 96822. (Mar-Apr 1979).

- Oct 28 - : ICOLD XIII Congress on Large Dams, New Delhi. C.V.J.  
Nov 2 : Varma, Organising Secretary, XIII Congress on Large  
Dams, c/o Central Board of Irrigation and Power,  
Kasturba Gandhi Marg, New Delhi, 110001, India.
- Oct 29 - : AAPG Diagenetic controls on carbonate porosity evolution.  
Nov 1 : AAPG Education Dept., P.O. Box 979, Tulsa, Oklahoma  
74101, USA.
- Nov 17 - 21 : X World Mining Congress, Istanbul. The Turkish National  
Committee of the World Mining Congress, Ziya Gokalp  
Caddesi, No. 17, Kat 8, Ankara, Turkey.
- Nov 20 - 21 : National Symposium on the availability of strategic  
minerals, London, U.K. The Secretary, Institute of  
Mining and Metallurgy, 44, Portland Place, London  
W1N 4BR. (May-Jun, 1979).

### 1980

- Feb 11 - 16 : Fifth Gondwana Symposium, Wellington, New Zealand.  
Secretary, Fifth Gondwana Symposium, Victoria  
University of Wellington, Private Bag, Wellington,  
New Zealand. (May-Jun 1978).
- Mar 24 - 28 : AAPG Petroleum Reservoir Fundamentals School. AAPG  
Education Dept., P.O. Box 979, Tulsa, Okla. 74101, USA.
- Apr 7 - 11 : International symposium on landslides 'ISL 1980', New  
Delhi. Dr. R.K. Bhandari, Organising Secretary, I.S.L.  
1980, P.O. Central Road Research Inst., New Delhi,  
110002, India.
- Apr 10 - 15 : 8th International Geochemical Exploration Symposium,  
Hannover, Fed. Rep. Germany. Dr. H. Gundlach, Organising  
Committee, 8th Int. Geochemical Exploration Symposium,  
Federal Institute for Geosciences and Natural Resources,  
P.O. Box 510, 153, D-3000 Hannover 51, W. Germany.  
(Jul-Aug, 1978).
- May 27 - 30 : National and International Management of Mineral  
Resources. The Secretary, Institute of Mining and  
Metallurgy, 44, Portland Place, London W1N 4BR, U.K.  
(Mar-Apr 1979).
- Jul 7 - 17 : 26th International Geological Congress in Paris,  
France. Secretariat General du 26 eme Congress geologique  
international. Maison de la Geologie, 77-78 rue Claude  
Bernard 75005, France. (Nov-Dec 1977).
- Aug. 4 - 9 : Second European Conodont Symposium, Vienna and Prague.  
ECOS II, c/o Geological Survey of Austria, P.O. Box  
154, Rasumofsteygasse 23, A-1031, Vienna. (Jan-Feb  
1979).

### 1981

- Mar 29 - : International Conference on Aridic Soils - Properties,  
Apr 4 : Genesis and Management, Jerusalem, Israel. Interna-  
tional Conference on Aridic Soils - Properties,  
Genesis and Management, P.O. Box 3054, 122, Hayarkon St.,  
Tel Aviv, Israel. (May-Jun 1979).