K E S A T U A N K A J I B U M I M A L A Y S I A

GEOLOGICAL SOCIETY OF MALAYSIA

N E W S L E T T E R

Number 6 May 1967

Contents

SUMMER SCHOOLS IN ORE MICROSCOPY

Two advanced schools on ore microscopy will be held this summer in Europe. The first will be the NATO Advanced Study Institute (Second International Summer School on Quantitative Methods in Reflected-Light Microscopy) in Bensheim, Germany, from 28 August to 2 September; the second will be that in Cambridge, England (British Summer School on Ore Microscopy) from 19 September to 23 September.

Mr. J.H. Leow of the Department of Geology, University of Malaya, will participate in both these schools as a member of the teaching team.

The First Circular of the NATO School states:

Quantitative methods in reflected-light microscopy are in a state of rapid development. After the success of the first International Summer School on this subject at Cambridge, England, in 1963, it was felt that a second School of the same kind should be held a few years later. A second grant of funds from NATO now makes it possible to hold this in 1967.

The second International Summer School will be held at the Kurhotel Krone, Bensheim-Auerbach, Germany (West), from Monday, August 28th, to Saturday, September 2nd, 1967 (inclusive). Members may arrive on Sunday, August 27th if they wish. Bensheim is situated at the foot of the Odenwald, between Darmstadt and Heidelberg, about 50 kilometers south of Frankfurt.

The object of the Summer School will be to teach the theory and practice of quantitative methods in reflected-light microscopy, especially in reflectivity and micro-hardness. There will be lectures, discussions and practical, with emphasis placed on learning to work with the apparatus. A large amount of apparatus, kindly loaned by certain firms, will be available for the use of the members.

In addition to the teaching staff there will be two other kinds of members, namely Students and Observers.

(Students will be limited in number and are recruited through member countries of the International Mineralogical Association. Your Secretary has written to the IMA to express the wish of the GSM to affiliate on behalf of Malaysia, but has not so far received a response. It is probably not possible for any Student particapators from Malaysia to attend the School. - Ed.)

Observers will in general be older than Student-members. They will not have a fixed place at the working bench but will

be allowed to work with the apparatus at any time outside the hours of Students' practical work. They will be welcome to take part in any other activity of the Summer School. We regret that funds at our disposal do not allow us to pay any expenses at all for Observer-members, but there are no fees for participation. The number of Observers will be limited by the accomodation available but every attempt will be made to accomodate all who wish to come. Anyone interested in attending as an Observer is asked to contact the IMA/COM Representative of his country (Contact the Secretary of the GSM in Malaysia - Ed.) in addition to writing direct to the Secretary of the Summer School:

Prof. Dr. K. v. Gehlen
Mineralogische Institute der Universität
Senchenberg-Anlage 28
6 Frankfurt, Germany (West)

The Program of the School includes introductory and basic lectures on microscope optics and photometry (v. Gehlen, Medenbach, Ramdohr, and Piller); on reflectivity standards (Bowie); on micro-hardness (Uytenbogaardt, Gahm); on colour values of ore minerals (Piller); on special observation methods (Kornder); on preparation methods (Prins); and a general discussion (organized and introduced by Henry).

There may also be excursions to Heidelberg or the Odenwald. These will be non-technical.

REPORT ON EARTHQUAKE OF APRIL 12

On April 12, 1967, residents of parts of West Malaysia were startled by the unfamiliar experience of an earthquake. Although mild here, it was rather widely felt: in Kuala Lumpur and Ipoh it was only perceived in tall buildings, which swayed slightly; in Alor Star is was felt a little more strongly and there were reports (never confirmed) of cracked pavements; in Georgetown, Penang, it was felt by people in one-storey houses and even (according to reports) outdoors. One rather ancient brick wall collapsed in Penang.

From the widespread though mild extent of the shock, and considering West Malaysia's aseismic character, it seemed probable that the epicenter was probably in or around Sumatra. Confirmation of this has come in a report from Jakarta (in the Straits Times of 18 May, 1967) that 14 people were killed and 2000 houses destroyed in North Sumatra during the earthquake.

The report in the Straits Times continues: "Mr. Njak Yusda, launching an appeal on behalf of the people of the worst hit Atjeh region, said the quake claimed a further unknown number of casualties when it caused a train to roll off its tracks. He said the tremors were so violent in some places that they sent underground water deposits spurting up into the air."

A radio report just after the earthquake quoted the Royal Observatory in Hong Kong as placing the epicenter in the Andaman Sea. It is interesting in this connection to note that oceanographic investigations by the USC&GS Ship "Pioneer" traced a major rift zone from the north tip of Sumatra northward through the western part of the Andaman Sea. This major fault zone includes very steep scarps and is probably still active. It is continuous with the central rift in Sumatra.

VISIT TO JAPAN BY D.J. GOBBETT

Dr. D.J. Gobbett, paleontologist and lecturer in the Department of Geology, University of Malaya, paid a 6-week visit to Japan during February-April, 1967. The purpose of the visit was "to further my research on Malayan Permian fossil faunas, firstly by consulting Japanese colleagues and scholars on closely related problems, and secondly by allowing me to see, and collect from, Japanese Permian type localities. I also intended to discuss Malayan fossil faunas, other than Permian, at present being studied by Japanese paleontologists. Dr. Gobbett was pleased to be able to reciprocate at last the several visits to Malaya by Japanese geologists and paleontologists over the past few years. The visit included talks with Japanese workers and looking at collections at the Universities of Kyushu, Kyoto, Osaka City, Tokyo, Tohoku (in Sendai, northern Honshu), and Hokkaido University of Education in Hakodate and Hokkaido University at Sapporo.

While at Kyushu, Gobbett went on two excursions:

"The first was to Akiyoshi Dai Limestone plateau in Yamaguchi Prefecture, southern Honshu. Here I spent three days in the company of Mr. Ota of the Akiyoshi Dai Science Museum who is an authority on the area. This limestone plateau is a national monument preserved for its geologic interest and scenic beauty. It is a typical karst plateau formed of massive limestone of Carboniferous and Permian age and has a complex geological structure. For the last 40 years it has been intensively studied by several eminent

Japanese geologists. I was able to collect samples of richly fossiliferous rock from 10 fossil zones ranging in age from Middle Carboniferous to Upper Permian. I also visited Upper Triassic coal measures containing excellently preserved fossil plants. My stay at Akiyoshi was paid for entirely by the Akiyoshi Dai Science Museum, to the Director of which, Mr. I. Kawasaki, I am sincerely grateful.

"The second excursion was to the Kuma region of central Kyushu, my guides being Dr. Kanmera and Dr. Tamura. Before visiting Juma, I spent one day at Kunamoto University and discussed Malayan Triassic bivalve faunas with Dr. Tamura and was taken by him to Mount Aso, a caldera volcano with active central cones. The Permian of the Kuma area includes the uppermost part of the System and also the Lower Triassic, a section of the geological column which is rarely preserved. Several facies of the Middle and Upper Permian are developed, some of which closely resemble the Permian deposits of Pahang."

Financial support for Dr. Gobbett's visit was provided by the Asia Foundation and the Lee Foundation. The trip was made a success by the generous hospitality and friendly cooperation of numerous Japanese colleagues and hosts. It was a rather striking contrast (and a pleasant one?) to be wading through the deep snow of Japan's late winter, and hammering at outcrops so cold your hands become numb!

NEWS OF THE SOCIETY

Amendment to Constitution approved

The proposed amendment to the Constitution of the Society, concerning provisions for disposing of the assets in case of dissolution, which was voted on by the membership recently, has been approved in the vote (without, rather suspiciously, a single 'no' vote). A copy of the new revised clause is enclosed and should be pasted into your copy of the Constitution.

No clue yet to 'mystery men'

No one has yet come forward to identify the three men who appear on the photograph taken at the January 31 meeting but who are unknown to your editor. Their positions were described in the original appeal for help in Newsletter 5 (March '67): Far left, back row; and 6th and 7th from left, 2nd row. If you were there, but have not received a copy of the photograph, you are probably one of them! Let us know.

Attendence at Prague Congress

The Geological Society of Malaysia has requested information concerning the Geological Congress in Prague, Czechoslovakia, in the summer of 1968. The Society will probably register as a non-attending member.

It would be appreciated if any members planning to attend the Congress would inform the Secretary, in order that the Society might be officially represented.

OIL HUNT QUICKENS

The increasing tempo of petroleum prospecting in Malaysia was highlighted recently by the announcement of the Deputy Prime Minister, Tun Abdul Razak (as reported in the Straits Times of May 18) that prospecting licenses had been granted by the government to two American oil companies. Both licenses are for off-shore areas on the continental shelf along the east coast of West Malaysia.

Esso Exploration Malaysia, Inc. was allocated the northern half of this continental shelf, and Continental Overseas Company of New York the southern half.

As explained in the same issue of the Straits Times, "Esso Exploration Malaysia, Inc. is a wholly owned subsidiary of the Standard Oil Company (New Jersey) and is one of several such subsidiaries engaged in exploration efforts in various parts of the world where that company has no existing crude oil production." The Malay Mail of May 18 quoted the vice-president of Esso Exploration Malaysia, Mr. E.C. Salmon, as saying: "We will use the most modern techniques and equipment in this extensive survey, involving an expenditure of several million dollars. A team of technical experts, many of whom will be from the Standard Oil Co. of New Jersey, the parent company, will be out here very soon to carry out the survey." Esso already has an active team of geologists in the area.

The vice-president of the Continental Overseas Oil Co., Mr. A.R. Ratti, said his firm would establish an office in the AIA Building in K.L., bring out a team of geologists, and conduct an aerial magnetometer survey of the area allocated to it. This area includes all the shelf south of latitude 5° (between Kuala Trengganu and Kuala Dungun). The allocation to Esso is the area north of 5° ; both are large areas, each amounting to about 25,000 square miles.

When Mr. Ratti made his original announcement of the company's interest a few months ago, the Straits Times gave

it the banner headline: "US FIRM TO INVEST $ 300 MILLION IN OIL HUNT IN MALAYSIA," a view the company perhaps finds a little premature! Nonetheless, exploration is expensive, and drilling test wells more so. Mr. Salmon estimates that a first well would cost as much as $ 15 million, and each later well $ 5 million to $ 10 million.

When these two new concessions for exploration are added to the already existing exploration by several oil companies (including Esso) in Sabah, and to Shell Oil Company's long-established operations in Sarawak, it all adds up to a very considerable interest in petroleum prospects in this country.

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Interest in the possibility of finding oil in Malaya is not, however, entirely new. In fact, the proximity of the rich oil fields of Sumatra led to numerous reports of the discovery of oil in Malaya in the early decades of this century. In the Annual Report of the Geological Survey Department, F.M.S., for the year 1930, J.B. Scrivenor, then Director of the Survey, commented on these (paragraphs 28-30) as follows:

"During the year two reports of the occurrence of oil came to the notice of the Director. In the first case a prominent company connected with the oil-trade sent one of their geologists to investigate reports of oil in the Dindings, received from Asiatics. The latter went so far as to produce a sketch-map on which was marked a natural seepage of oil. The geologist went to this spot and found no oil at all, which is not surprising seeing that the Dindings consist entirely of granite and recent alluvium except for a few boulders of quartzite. The company in question would have saved considerable expense had they consulted this department.

"The other alleged occurrence was investigated by the Director. An Asiatic reported that he had found oil in the Bukit Cheraka Forest Reserve Extension, about half a mile from Bukit Ijok Rubber Estate. This case was an improvement on that in the Dindings because oil, kerosene, was certainly present. It was floating on tiny pools in a gully where a tributary of the Sungei Buloh has its source, and as the country rock is quartzite heavily veined with quartz, someone must have put the oil there. He made a mistake in selecting kerosene. After the possibility of anti-malarial "oiling" had been investigated and dismissed, the matter was reported to the Police Department, but no evidence definite enough for

a conviction could be obtained.

"The writer was criticized some years ago for having condemned Malaya as a possible oil-bearing country without sufficient investigation. The general geological survey of Malaya has now been completed and no reason has been found to revise the opinion expressed earlier about possible oil-fields. Only in rocks younger than the granite can oil be expected and no large areas of such potential oil-bearing rocks exist. There are four patches only . . . " (There follows a description of the coal-bearing Tertiary basins, in which some insignificant 'oil shales' occur) ". . Not one natural seepage of oil has been proved to exist. Reports of oil have arisen from mistakes that might have been avoided, and from clumsy attempts at "salting."

Scrivenor did not forsee the possibility of finding oil in off-shore areas, but his conclusions concerning the oil possibilities of Malaya itself need little revision today.

DIPLOMA COURSE IN PHOTOGRAMMETRY

This year a diploma course in Photogrammetry and photo interpretation will be offered in the University of Malaya. This course will consist of:

Part I : Photogrammetry

Part II : Land Classification and Utilization

Part III : Photo Interpretation (with subsections showing its usas)

Photogrammetry, which accounts for half of the course, will be held in the photogrammetric section of the Engineering Faculty, whereas Parts II and III, photo interpretation and its uses and implications in the different disciplines, will be taught in the new Aerial Photo Interpretation Centre of the Department of Geology, Faculty of Science (see next item).

The two-hour classes will be held three times a week, after office hours. Attending so far will be some government officers, some individuals of private firms, and two members of the University staff. For information about this course, please contact Mr. R. Koechle, Faculty of Engineering, University of Malaya.

- BNK

NEW AERIAL PHOTOGRAPH INTERPRETATION CENTRE

In the new Geology Building, University of Malaya, which will be completed shortly, s ace has been provided for an aerial photograph interpretation centre. A laboratory of about 1200 square feet floor space has been especially designed for this purpose. In the adjacent Map Room the topographic and geologic map collections will be kept, which will be readily available for interpretation work. In the laboratory lighting is diffused by means of natural roof lighting. The absence of side-windows prevents glare or casting of shadows on the photographs during interpretation studies. In one corner of the laboratory a raised floor has been constructed which will serve as mozaic table or layout table for maps and photographs. The central and side benches are extra-wide so that persons working on photographs have ample space for layout of maps and photos. The laboratory provides space for classes up to 25 persons, with additional space in a side niche for two or three persons working with simple low-order plotting instruments.

The equipment at present available consists of over twenty mirror stereoscopes of different types, including Topcon, Zeiss, Wild, Old Delft, and two Casella parallel guidance mechanisms. The two Old Delft scanning stereoscopes, which have a device for correction of x and y parallax, are especially useful for teaching, as one set of photographs can be studied simultaneously by two persons in three dimensions. The Zeiss Sketchmaster and the Hilger and Watts radial line plotter and stereo-sketch are the low-order instruments available for transferring information from the aerial photographs into topographic or planimetric maps.

Recently the University obtained a complete set of aerial photographs of West Malaysia, scale 1:25,000, flown by Lockwood Survey Corp., Ltd., through the Canadian-Malaysian Colombo Plan. This aerial photograph collection will be retained in a library next to the centre and will be looked after by the Department of Geology. In addition, the Department of Geology has on order photographs on a scale of 1:60,000 or 1:50,000 of parts of West Malaysia which are also recently flown by the same corporation. East Malaysia is represented in the photo collection by a number of aerial photographs from areas of special geological interest which were donated to the Department of Geology by Shell Brunei Petroleum Co., Ltd. For teaching purposes, photo stereopairs and short runs have been obtained of geological and geomorphological features

of interest from all over the world. On aerial photographs from desert and mountains areas from Saudi Arabia, for example, the Malaysian geologist or geology student can study, with more or less envy, in what great detail photo-geological interpretation can assist the field geologist. To keep up to date with this space age, also a small collection of photographs taken from space crafts is present. These photographs, which were donated by the United States Information Service, show portions of the surface of the earth, the moon, and mars.

With the completion of this Aerial Photograph Interpretation Centre we hope to provide a service to the various Departments of the University and in a restricted way also to private firms, which have made use of our present limited facilities already. We hope to stimulate and develop the use of aerial photograph interpretation in the different disciplines. Aerial photograph interpretation is of importance in many fields and especially in the evaluation of natural resources in developing countries.

- BNK

A REMINDER

Your editor would like to remind you that this is YOUR Newsletter - your vehicle for informing your fellow geologists of what you are doing, communicating interesting news, or requesting help or information. Therefore don't hesitate to pass along any item of interest. Send it to:

The editor
GSM Newsletter
c/o Department of Geology
University of Malaya
Kuala Lumpur