



WARTA GEOLOGI

Newsletter of the Geological Society of Malaysia

Jilid / Volume 31

No. 1

Jan-Feb 2005

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The Society was founded in 1967 with the aim of promoting the advancement of earth sciences particularly in Malaysia and the Southeast Asian region.

The Society has a membership of about 600 earth scientists interested in Malaysia and other Southeast Asian regions. The membership is worldwide in distribution.

The Warta Geologi (Newsletter of the Geological Society of Malaysia) is published bimonthly by the Geological Society of Malaysia. The Warta Geologi is available free to members of the Geological Society of Malaysia.

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Printed by:
Art Printing Works Sdn. Bhd.
29, Jalan Riong
59100 Kuala Lumpur
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CATATAN GEOLOGI (Geological Notes)

Effects of the 26-December-2004 Indian Ocean earthquake

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On that day at UTC 00:58:53 an extremely strong M 9.0 earthquake occurred at an estimated depth of 30 km in the subduction zone between the Indian and Burma plates. The epicenter (3.32N 95.85E) was several hundred kilometres north of Pulau Simeulue off the western Aceh coast (Fig.1). The subduction (considered a megathrust by some colleagues) affected the northerly striking plate boundary over a lateral distance of 900 to 1200 km. U.S. Geological Survey sources computed a relative vertical displacement of the sea floor of "several" metres while Sumatra and the containing Burma Plate laterally shifted about 10 metres in West-southwest direction. The earthquake destroyed many buildings and dwellings of Banda Aceh and Meulaboh and the coastal zone in between. On-the-spot illustrations carried by newspapers showed less than a-metre-wide zones of en echelon cracks in road decks. Their strike directions are not known. The en echelon pattern, however, clearly indicates right-lateral faulting. The sudden and strong sub sea disturbance generated seismic sea waves that propagated at speeds of ~500-800 km/h mainly towards east and west from the elongated seismic zone (Fig. 1). These are tsunamis that in open sea have low amplitudes, possibly less than a couple of metres, and very long wave lengths of the order of many tens of kilometres. Upon reaching shallow depths, wave propagation is impeded by increasing friction with the sea floor, wave length decreases and amplitude increases. The growing wave height is partially nourished by abstracting sea

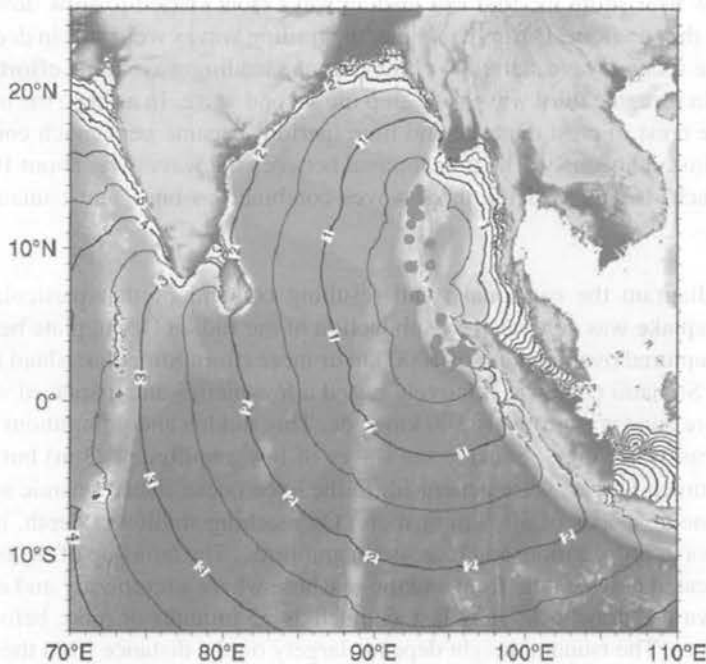


Figure 1. Epicenter of the M 9.0 (star) epicenter near P. Simeulue, and extension of the rupture as far north as the region to the west of the Andaman and Nicobar islands. Travel times of the tsunami front is in hours with respect to the main earthquake event. Illustration is from Kenji Satake's website.

water from the shallow offshore in front of the advancing wave. On the shore an unusually low tide manifests itself. The apparent low-tide may last 15 minutes or even longer before the tsunami front surges up the beach and overruns the land surface. At the Batu Ferringhi beach one of us (KLT) observed that the second wave front was higher than the first. The eyewitness account is in the next paragraph. Most probably the higher elevation was acquired by the second tsunami front as that water body had less interference from the sea floor and rode atop the first wave.

The first tsunami hit Batu Ferringhi beach at 1.25pm 26 December 2004, about 4.5 hours after the M 9.0 earthquake. Earlier in the day at 9.05am, tremors were felt in Georgetown. The shaking was detected at ground floor level and lasted about two minutes. Within minutes, the tremors emanating from the earthquake were also felt in Kota Bahru, Kuala Lumpur and in many parts of Peninsular Malaysia. It was reported that the earthquake also felt as far as in Bangkok.

The tsunami came in a train of three wave fronts. I (KLT) estimated the speed to be at about 40 to 50 km/h as it approached the shoreline. When I first saw it at 1.20pm, it was about 3 km out at sea, rumbling out from the horizon. Just a minute before the first wave hit the beach, I observed the sea receding about 1.5 metres from the normal sea level. This phenomenon allowed a couple of adventurous tourists to rush out onto the dry seabed to pose for photographs with the developing wall of water as its background. Then suddenly the dry near shore started to fill again almost instantaneously. The rumbling had turned into deafening roar. The sea water appeared like brownish, boiling fluid laden with sand and mud at the foot of the fast approaching wave wall. Everybody started to run inland as the first wave started to break. The splash was with such ferocity that it reached the top of the beach. Within moments, the second wave came crashing in quickly followed by the third and largest wave. As the crowd retreated, a few were caught by the sudden turn of events. Deck chairs and umbrellas were tossed up as the sea crashes onto the entire beach and surged into the hotel compound. The hotel compound became flooded to a depth of about 20 centimetres. I estimated the sea level rose 4 to 5 metres from its normal level and it stayed there for about 2 minutes before subsiding.

I (KLT) noticed the following about the morphology of the wave fronts:

Out at sea, the three wave crests were a few hundred metres apart but the wavelength reduced substantially as it reached the shallow water.

Upon reaching the shallow near shore the first and leading wave front started to slow down dramatically as it encountered frictional drag by the sea floor. During this time, the trailing waves were still in deeper water travelling at higher speed. As a result, the second wave started to climb onto the leading wave quite effortlessly because it did not experience as much drag. In turn, the third wave rode atop the second wave. In a short, the trailing waves caught up with the leading wave. The crest to crest distance and time (period) became very much compressed. The three waves started to break almost instantaneously. The time interval between the waves was about 10 seconds from each other as they broke at the beach. It was as if the three waves combined as one giant tsunami with three waves breaking in quick succession.

Figure 2 shows in one diagram the earthquake and resulting tsunami of that particular date. The USGS concluded that the M 9.0 earthquake was generated by subduction of the Indian Ocean plate beneath Sumatra at 30 km focal depth. The seafloor ruptured over a length of 1000 km or more (from Simeulue island north into the region of the Andaman Islands). The Sumatra edge was relatively raised a few metres and displaced west-southwest for about 10 metres. The rupture zone was probably 100 km wide. This sudden and voluminous displacement of sea floor disturbed the Indian Ocean water mass. Seismic sea waves of low amplitude (<3 m) but of long wavelength (several tens of kilometres or much longer) were generated. In the open ocean these seismic sea waves spread out from the elongated rupture zone at speeds of 500 km or more. On reaching shallower depth, interference with the sea floor caused reduction of wave propagation and increase in amplitude. The build-up of the tsunami front is often also nourished by sea water located between the front and the seashore where a temporary and extremely low "tide" develops. This situation, known as "drawback" may last as much as 15 minutes or more before the tsunami front surges and crashes onto the shore. The tsunami height depends largely on the distance from the epicenter, the depth of the nearshore seafloor, its width, and the morphology of the coastline.

Figure 3 shows the epicenters of moderate to strong aftershocks on 27 December. Their geographical distribution clearly associates these shocks with the subduction of the Sunda Trench AND with activity on the seaward extension

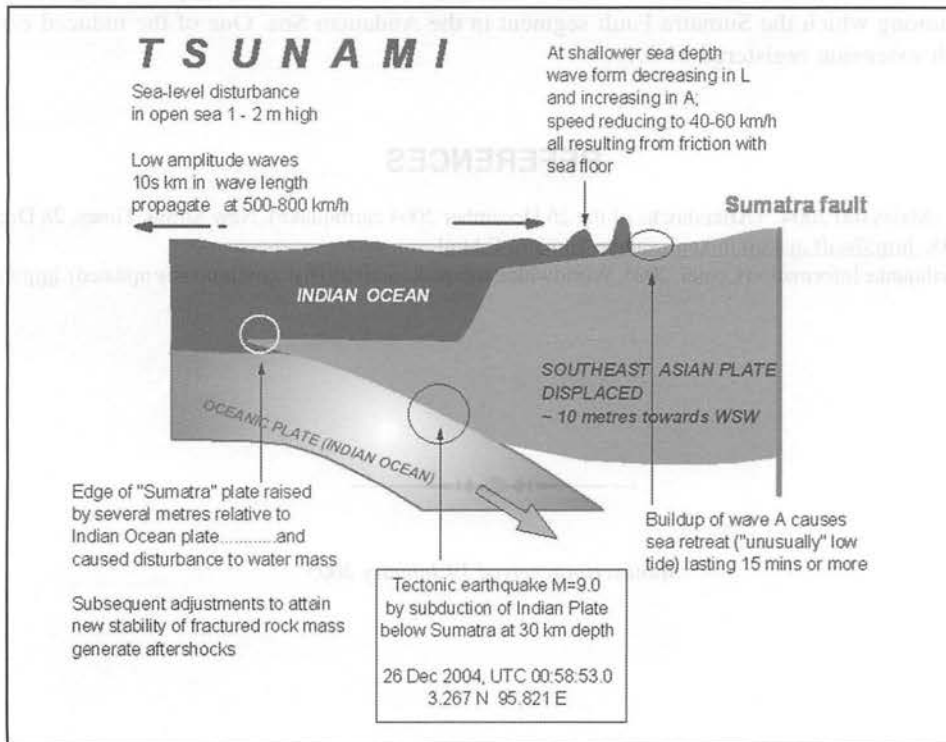


Figure 2. The earthquake of 26 December and ensuing tsunami development.

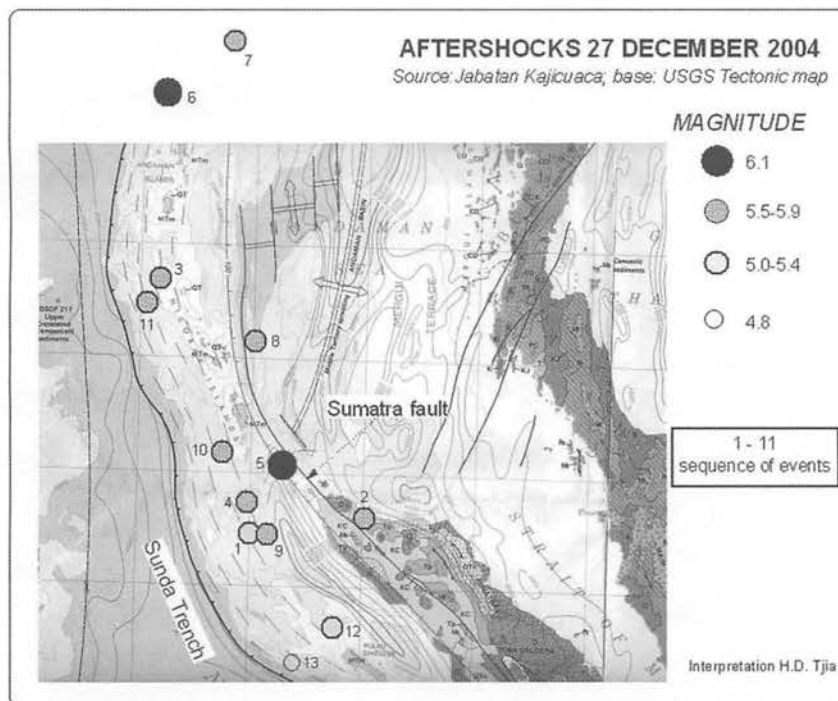


Figure 3. Distribution of eleven epicenters of moderate to strong aftershocks occurring on Dec 27, 2004, indicates association with the subduction zone but also with the subsea extension of the active Sumatra fault zone.

of the active Sumatra Fault. Aftershocks monitored until 2 weeks after the main event and plotted on the same tectonic map indicate a similar distribution. It is our conclusion that the M 9.0 earthquake triggered motion along existing faults, among which the Sumatra Fault segment in the Andaman Sea. One of the induced earthquakes on the Sumatra fault extension registered M 6.1.

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Manuscript received 19 January 2005

Wallace in Kuching

ROBERT B. TATE

The names of two eminent scientists and an amateur naturalist – cum - animal skin and insect trader are involved in the fascinating story leading to the publication of the theory “Origin of Species”. Charles Darwin and Sir Charles Lyell were among the leading scientists of the day involved in the problem of human and animal evolution 150 years ago. Alfred Russel Wallace left school at the age of fourteen without any formal training in any science and travelled to remote areas of the world first to South America and then to Borneo and the Moluccas, collecting specimens of insects and birds (especially Birds of Paradise) many of which he sent to an agent in London to sell to alacritous Victorians keen to advance their knowledge. The sale of these rare and unusual specimens financed his travels. He suffered many privations during his travels to remote parts including malaria, tropical ulcers and intestine infections. He also was acutely observant and highly intelligent and tried to solve the Great Mystery – the Problem of Evolution, contributing articles to the leading nature journals of the day. Amongst his readers was Charles Darwin, a prominent naturalist/philosopher famous for his epic journey on board the Beagle to South America and the Galapagos Islands and one of the founders of experimental biology.

Most scientists will have encountered the Darwinian theory of the origin of species and perhaps know the controversy surrounding the first public airing of the theory and the rather suspect way in which the paper was presented to the Linnean Society in London on 1st July 1858. Darwin had been working on the problem of evolution for 20 years before his hand was forced by this momentous event. Meanwhile, Wallace had been wandering around the remote islands of the Moluccas and had noticed a distinct division between animal species and human attributes east and west of Sulawesi. Geologists are now familiar with the “Wallace Line” which traverses Sulawesi and traces roughly the boundary between the Asian and Australian continents.

Few may know however that Wallace visited Kuching in 1855 and more importantly, it was here that Wallace first wrote his thoughts about evolution and the origin of species in a paper which appeared in a popular Victorian journal “The Annals and Magazine of Natural History”. Recuperating from one of the many bouts of fever he had to endure and living in a cottage loaned to him from Rajah James Brooke, Wallace spent his time reviewing his notes and drew up a list giving ten “well known geographical and geological facts”. He correlated the fact that similar species evolved in similar environments and noted that the geological record shows “no group or species had come into existence twice”. Wallace deduced that “every species has come into existence coincident both in time and space to a pre-existing closely allied species”, implying that a continuous selection process has taken place throughout geological time resulting in species diversity.

Wallace, in similar circumstances to his stay in Kuching when he was laid low with fever, wrote his inspiration on Origin of Species in a letter to Darwin from Ternate, a small volcanic island immediately to the west of Halmahara. Summarizing his thoughts and in little more than 4,000 words, expounded his revolutionary theory on evolution leading to a final conclusion – *the survival of the fittest*; this letter to Darwin was a “bombshell” as it precisely enunciated the same conclusions Darwin had reached some years before in 1842 but never published. As requested by Wallace, Darwin sent the letter to the eminent geologist Sir Charles Lyell, Lyell consulted another eminent scientist, Dr Joseph Hooker and, in short, the two scientists put to Darwin a stratagem or “ delicate arrangement” that the theory of Natural Selection would be presented to the world in a joint “Darwin-Wallace” paper at the Linnaean Society meeting on 1st July. Darwin had the advantage since Wallace was safely a few thousand miles away in the Moluccas.

Eventually, Darwin's book "*On The Origin of Species by Means of Natural Selection*" - a shortened version of the origin manuscript - was published 17 months after the receipt of Wallace's "bombshell" letter. The book became an immediate best-seller - all 1,250 copies were acquired by booksellers on the first day of publication and the book progressed through six editions in the next 13 years.

Wallace returned to England in 1862 after an eight-year absence. He wrote up his notes and published many scientific papers together with his book *The Malay Archipelago*. He married and lived in and around London until his death in 1913, at the age of 90, outliving Darwin by 30 years.

A commemorative meeting takes place in July 2005 at the Kuching Museum to mark the 150th anniversary of Wallace's visit to Sarawak.

And now, 150 years later, the human genome project has now reached the stage that scientists have found a common universality in the genes of animals and humans. It is the *arrangement* of these genes that determines the finished product.

List of dates.

Darwin and the voyage of the Beagle; travels to South America and the Galapagos Islands from 1831 to 1836.

Darwin after 20 years of thought about the origin of species begins in 1856 to write a monumental work provisionally called *Natural Selection*.

Wallace travels to the Amazon jungle in South America in 1846 with his friend Bates from Leicester to collect specimens for sale as well as specimens for research into the "species problem".

Wallace travels to Sumatera, Java, Borneo and Sarawak during 1854-1856 and thence further east to Spice Islands - the Celebes (Sulawesi) and the Moluccas between 1856 and 1862.

In 1855 Wallace visits Kuching and stays in a cottage loaned to him by Rajah James Brooke and writes an essay on evolution published in *The Annals and Magazine of Natural History*.

In February 1858, Wallace writes in Ternate his groundbreaking essay on "Evolution by Natural Selection", and in March sends the letter by mail steamer to Charles Darwin where it arrives at Darwin's home in Kent, England in June.

(Wallace also wrote a letter to his friend Bates in Leicester, England which was sent at the same time as the letter to Darwin but arrived on **3rd June 1858**, two weeks *before* that to Darwin who would later claim the letter to him had arrived on **18th June**.)

Darwin writes to Dr Joseph Hooker, an eminent biologist and confidant on **8th June** giving details of the keystone to his theory on the principles of species divergence.

Linnean Society meeting on 1st July 1858 when the Darwinian Theory of Evolution by Natural Selection was first proposed in a 'joint' Darwin-Wallace presentation.

Further reading

The Spice Islands Voyage by Tim Severin. Little, Brown and Company, 1977. A lucid account of the Wallace story following re-tracing Wallace's voyages in Indonesia.

The Malay Archipelago by A. R. Wallace. Oxford University Press paperback reprint, 1986.

Manuscript received 20 January 2005

PERTEMUAN PERSATUAN (Meetings of the Society)

Ceramah Teknik (Technical Talk)

THE QUEST FOR ENERGY

14 December 2004
 School of Physics
 Universiti Sains Malaysia

PETER LLOYD

Report

The Northern Section of the Society, in collaboration with the Geophysics Group of USM and the USM-AAPG Student Chapter, hosted a talk by Peter Lloyd on the Tuesday, 14th of December 2004. The talk, which was held at the Conference Room of the School of Physics, was well attended by about forty students and staff. The well-illustrated talk, which summarizes the roles of the different disciplines and professions involved in the search for, and discovery of petroleum, was well received by all the students. Mr Lloyd also clearly highlighted future challenges facing the industry, and the preparation required for the new generation of petroleum geoscientists. It was extended for nearly another hour due to overwhelming questions from the students. Mr Peter Lloyd has made himself very popular among the USM group. We hope to welcome him again in the near future.

Abd. Hadi Abd. Rahman

Summary

This comprehensive introductory treatment of the Oil & Gas industry starts off by looking at world energy needs, worldwide oil and gas reserves and the challenging careers that are offered as those reserves are found and developed. The importance of technology advances is highlighted.

Different inter-related disciplines in the oil and gas industry will be discussed; geophysics, stratigraphy, sedimentology, geochemistry, petrophysics and reservoir engineering. The importance of data integration will be highlighted.

Petroleum Systems will then be examined with a discussion of source rocks, reservoirs, seals and traps as well as the processes of O&G generation, migration and entrapment. The drilling and production of hydrocarbon accumulations will also be presented.

The presentation concludes with a review of the importance of professional society involvement in ones career.

Ceramah Teknik (Technical Talk)

**SULFUR CYCLE THROUGH NEOPROTEROZOIC AND CAMBRIAN:
STUDIES ON SULPHUR AND OXYGEN ISOTOPIC STUDIES OF
CHEMOGENIC SEDIMENTS FROM INDIA**

**20 January 2005
Geology Department
Universiti Malaya**

(In collaboration with the Dept. of Geology, Universiti Malaya)

DR. ANIDA MAZUMDAR

Geologisch-Palaontologisches Institute
Westfallische-Wilhelms Universitat
Munster, Germany

Report

Although it was an unexpected half-day pre-Hari Raya Korban holiday at the University of Malaya, a small group of interested GSM members, mostly from the University of Malaya, attended the very interesting talk by Dr. Anida Mazumdar. Dr. Anida purposely flew in from Singapore where he was stopping over while enroute back to Delhi after completing his two years of post-doctoral research as a Humbolt Fellow at the Geologisch-Palaontologisches Institute, Westfallische-Wilhelms Universitat at Munster, Germany.

The talk was held at 5.30pm at the Geology Lecture Hall of the university on 20th January 2005. There was an interesting time of discussion following the talk as it is a rare opportunity to pick the brains of someone specialising in isotopic studies of chemogenic sediments.

Lee Chai Peng

Abstract

Extensive studies on sulfur isotopic compositions of evaporites through Proterozoic and Phanerozoic have paved the way to understand the marine biogeochemical cycle and fluctuations in the sizes of various sulfur reservoirs through time, which in turn is intimately connected to atmospheric oxygenation, plate tectonics and other natural processes of interest. Attempts have also been made to model the mutual relationship between carbon and sulfur reservoirs through time. However, many unsolved and fundamental problems remain to be answered. In the present talk we will dwell in to the world of sulfur isotope systematics and get a glimpse of the problems and prospects ahead. I will present my research on sulfur and oxygen isotopic compositions of trace sulfate in phosphorites and associated reduced sulfide phases. I will make a comparison of the results with our studies on evaporites and evaporitic carbonates from India spanning this time window.

Ceramah Teknik (Technical Talk)

THE CORUNDUM (RUBY & SAPPHIRE) MINES OF MOGOK, MYANMAR

27 January 2005
Geology Department
Universiti Malaya

(In collaboration with the Dept. of Geology, Universiti Malaya)

LAU YIN LEONG

GINN-M Corporation Sdn. Bhd
e-mail: jadeite@streamyx.com

Report

More than twenty interested people including several non-geologists turned up for the talk by Mr. Lau (Chairman of the Economic Minerals Working Group of our Society) at the Department of Geology, University Malaya at 5.30pm on Friday, 27.1.2005. Those present were entertained and informed about the world of sapphires and rubies and treated to a virtual visit to Mogok in Myanmar where the best of these gems are produced today. Questions and comments from the floor were already flowing freely during the talk as the curious audience could not wait till the talk was over. The discussion went on for quite a while after that showing how interesting was the topic.

Lee Chai Peng

Summary

Red rubies (chromium rich), blue sapphires (iron and titanium rich) and fancy sapphires of all other colours are all varieties of corundum. They are heavy with S.G. 4 and R.I. 1.762-1.770. They contain minute rutile "silk" inclusions that are helpful in detecting heat-treated stones as these inclusions are broken during heat treatment. Zircon and calcite inclusions and negative crystals are helpful in identifying the source of the stones.

The Mogok Stone Tract is the most famous of all the rubies and sapphire mines in the world where top pigeon blood rubies come from. It is in a restricted area north of Mandalay at an elevation of over 3000m and access is strictly controlled by the military junta.

The rubies are embedded in calcite veins in skarn rocks that are accessed through crude tunnels dug into the ground. The rocks are simply blasted with dynamite and carried to the top by a series of conveyor belts. Alluvial mining is also carried out by vertical "monkey pits" sunk into the gem-bearing gravel beds. The rubies and sapphires are strictly traded at government auctions where each stone is certified by six gemmologists to guarantee its genuineness!

Over 90% of the rubies and sapphires on sale have been heat treated or otherwise enhanced (beryllium treatment by bulk diffusion or surface diffusion with methylene iodide) to improve their clarity or change their colours to make them more attractive. Good quality untreated natural stones are very rare and can be more expensive than diamonds on a per carat basis. Synthetic stones are quite easily produced and are cheaply available.

Ceramah Teknik (Technical Talk)

MSIA-GSM SATURDAY MORNING TECHNICAL TALKS

26 February 2005
Geology Department
Universiti Malaya

Report

On Saturday, 26 February 2005, two interesting talks were organized jointly by the Malaysian Site Investigators Association (MSIA) and the Geological Society of Malaysia (GSM) at the Department of Geology, University of Malaya. The purpose of the event is to bring together experts and practitioners to share their knowledge and experience. This half-day event started at 9.00am and ended at 12.00pm.

The talks were delivered by two different speakers on two different topics. The first talk entitled *Planning and interpretation of geophysical survey for soil investigation and engineering design* was delivered by Mr. Y. Yokoi of Kiso-Jiban Consultants (M) Sdn Bhd while the second talk entitled *Occupational safety and health awareness at workplace (with emphasis on SI sites)* was delivered by Mr. Abdul Rasid Jaapar of Soils & Foundations Sdn Bhd.

There were approximately 34 people present at the talk. A lively discussion followed each talk.

Talk No. 1: Planning and interpretation of geophysical survey for soil investigation and engineering design

Mr. Yokoi started his talk by explaining that most civil engineers are not familiar with limitations of geophysical survey techniques. The talk presented basic and practical interpretation process of geophysical survey data. Upon receiving data, engineers need to interpret them and understand subsurface conditions in order to derive a set of reliable design parameters. The data will also assist engineers to assign additional soil investigation program, if necessary. Analyzing the available data will assist engineers to formulate subsurface stratification, soil parameters and soil model for engineering design. In order to accomplish this, engineers have to understand the accuracy, limitations, advantages and disadvantages of each type of geophysical survey data. The talk was originally presented for "Seminar on Geophysical Survey for Civil Engineering Projects" organized by NTU in Singapore on March 2004.

Talk No. 2: Occupational safety and health awareness at workplace (with emphasis on SI sites)

Mr Abd Rasid started his talk by questioning the audience whether they consider safety and health in their own house. What is the plan if there are hazardous sources found in our own house? What is our family plan if our house is on fire? Occupational Safety and Health (OSH) at workplace has always been placed at the lowest priority by company management team. Many company management teams think that OSH will increase their operating cost. However, lately OSH has played greater role in many workplaces including the construction activities. The talk attempts to share and address some of the topics related to OSH at workplace. The topics covered in the talk includes OSH Act (1994), Safety and Health Committee, developing OSH management system at workplace, risk management, and accident prevention. It is hoped that this talk can create awareness on the importance of OSH at workplace.

Abd Rasid Jaapar

Ceramah Teknik (Technical Talk)

TECTONO-SEDIMENTARY EVOLUTION OF RIFT BASINS

**28 February 2005
Geology Department
Universiti Malaya**

(In collaboration with the Dept. of Geology, Universiti Malaya)

PROFESSOR ROB GAWTHORPE

Basin and Stratigraphic Studies Group, School of Earth,
Atmospheric and Environmental Sciences, University of Manchester

Report

Despite the short notice and it being the beginning of the exam week in the University of Malaya, a small group of academics and students attended the talk by Prof. Robert Gawthorpe who was in town to promote the newly established University of Manchester (merging UMIST & Victoria University). The talk was held at 5.30pm at the Geology Lecture Hall of the university on 28th February 2005. His very well illustrated talk on the rift basins in Greece and Suez was very interesting and informative.

Lee Chai Peng

Abstract

The evolution and linkage of fault segments to form continuous, basin-bounding normal fault zones is recognized as a first-order control on the size, shape and stratigraphy of sedimentary basins within areas of continental extension. Integrated structural and sedimentological studies from the North Sea, Suez rift and central Greece have allowed the evolution of fault populations to be investigated and the landscape and sedimentary response to fault evolution to be determined. The active faulting phase of rift basin evolution can be divided into three progressive stages each with a characteristic tectono-sedimentary style: i) rift initiation, ii) fault interaction and linkage, and finally iii) rift climax. Typically the rift initiation to rift climax evolution occurs on the time-scale of several million years.

During rift initiation, fault activity is distributed on short (1-4 km long), low displacement (<1 km) segments. Major tilted fault blocks that characterize the structural style during the later rift climax stage are absent, and fault-propagation folding above blind normal faults is a prominent feature at the Earth's surface. As a result, structural control on depositional systems is subtle, pre-existing drainage systems commonly dominate sediment dispersal, and early depocentres are 'over-filled'. Examination of stratal terminations around fault tips suggest that faults may attain their maximum length soon after the onset of rifting. Over the first several millions of years of rifting, early-formed segments either begin to hard link, forming longer, segmented fault zones, or become inactive and die. Stress feedback between ruptures on adjacent fault segments is an important control on fault growth.

Following rift initiation, displacement becomes progressively localized onto >25 km long border fault zones that bound broad, tilted fault blocks. During this interaction and linkage phase, many of the early intra-block fault zones become inactive. Thus strain becomes progressively localized on fewer, but longer, fault zones and, as a result, displacement rate on the remaining 'rift climax' faults is greater than during rift initiation times. The stratigraphic expression of this strain localization is a change in the basin fill from overfilled during rift initiation times, when sedimentation is dominated by continental to shallow marine/lacustrine deposits, to sediment-starved, deep-water facies during the rift climax phase when displacement rates outpace sedimentation. Furthermore, the

breaching of relay ramps during linkage may cause major readjustments to the drainage networks feeding sediment into the rift. The locus of fault activity continues to migrate following the development of a through-going, linked border fault zone. Commonly this is associated with a narrowing of the rift zone such that old, inactive faults become progressively abandoned and uplifted in the footwalls of younger fault zones. This results in cannibalization of older basin fills.

The dynamics of fault population evolution illustrated here are comparable to those suggested by analogue and numerical modeling studies. They have important implications for the tectono-stratigraphic evolution of rifts and for understanding complex and often subtle syn-rift plays and the structural compartmentalization of major fault blocks.

Photos from Technical Talks

SULFUR CYCLE THROUGH NEOPROTEROZOIC AND CAMBRIAN: STUDIES ON SULPHUR AND OXYGEN ISOTOPIC STUDIES OF CHEMOGENIC SEDIMENTS FROM INDIA



THE CORUNDUM (RUBY & SAPPHIRE) MINES OF MOGOK, MYANMAR



TECTONO-SEDIMENTARY EVOLUTION OF RIFT BASINS



BERITA-BERITA PERSATUAN (News of the Society)

Keahlian (Membership)

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22, Lorong Raja Udang 19, Taman Kingfisher Phase 2,
84500 Kota Kinabalu, Sabah.

Institutional member

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Ampang, 50450 K.L.

Pertukaran Alamat (Change of Address)

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

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Australia.

Dan Spencers
17610 East Nichols Place,
Centennial, CO 80016,
USA.

Fathur Rahman Zakaria
No. 61, Jalan TU26
Taman Tasik Utama
75450 Ayer Keroh
Melaka

Pertambahan Baharu Perpustakaan (New Library Additions)

The Society has received the following
publications:

1. USGS Circular no: 1239, 1238 (2004)
2. USGS Professional Paper no: 1684, 1422 A (2004)
3. AAPG Explorer, Dec 2004 & Jan 2005

BERITA-BERITA LAIN (Other News)

Interviews

A series of interviews will be conducted with well-known geoscientists in Malaysia. The objectives of these interviews are to see geoscientists as real living people and to learn about the geoscience experience of these geoscientists.

For this issue, the editor has interviewed two well-known geoscientists in Malaysia. They are Mr. P. Loganathan and Mr. Denis Tan. Views expressed by these geoscientists are entirely their own and do not in any way reflect those of the Geological Society of Malaysia.

Interview with Mr. P. Loganathan



What made you enrol in geology/geoscience courses in university/college?

After my Higher School Certificate results came out and I applied to the National University of Singapore (NUS) and University of Malaya (UM). This was in 1967 when there were only “local” 2 Universities. NUS offered me pharmacy and UM offered me Science. I took up UM’s offer and left home for Kuala Lumpur. It was during the registration of subjects offered for BSc that I met and talked to Dr. Peter Stauffer. His briefing on Malaysian Geology (and the fact that we had the oldest rock formations in Langkawi!) and the country’s requirements in the fields of mining and petroleum was what triggered my interest. Geology was something completely different from what I had studied during my school days.

What are your challenges as a geoscientist?

My greatest challenge as a geoscientist was when I was tasked to undertake the geological mapping and mineral resources of the Segamat Map area. It was like being thrown into the deep end of a pool. This was because, although we were exposed to field visits and report writing in the University, these activities were always under the supervision of the lecturers. Here, I was asked to do – alone - the mapping of an area which had not been mapped before. I had to ensure that the various minerals and rock types in the area were correctly identified as well as placed stratigraphically correct. I was determined to take up the challenge and was able to complete the mapping in the time frame given me. It was here too that I learned that, in the jungle, you needed to depend on your junior officers as well as your labourers to ensure that every field trip was successfully conducted and completed. You therefore need to develop “people” skills. All these were challenges that although, at that time, seemed huge, were nonetheless enjoyable.

What is your greatest moment of joy as a geoscientist?

It was during the Malacca Water Crisis and we were asked to drill and construct ground water tube wells in various areas in the state. In many of the areas where we had successfully developed the ground water resource, it was most heartening and joyful to see our efforts being fully appreciated by the local people who lined up with pails and drums to collect the good quality ground water as it was being pumped up from the ground.

What is your advice to the younger generation of geoscientists to be a good geoscientist?

I would advise them to do as much field work as they possibly can as a geoscientist's work site is in the field. It is unfortunate that many of the younger geoscientists have not had the kind of field exposure that we had. In Malaysia, in the public sector, funds have been drastically reduced for undertaking basic geological mapping. However, mapping is still being undertaken in Sabah and Sarawak. This means that the younger geologists, who join the public sector, would need to serve in Sabah and Sarawak to undertake field mapping. If you are really interested in geology, then join the public sector and go east. Learn to rough it out in the field where you can learn how to forge a good relationship with your junior officers and labourers. This will prepare you with good management skills which you will need later on in your career.

Interview with Mr. Denis Tan



What made you enrol in geology/geoscience courses in university /college?

Geology was certainly not my first choice. In fact, geology never entered my mind when I was in school. I had always wanted to study telecommunications engineering. At that time, our class had an agreement on the allocation of scholarship in order to minimize competition amongst ourselves. When the scholarship ad was released, there was no telecom engineering offered. There was an offer for geology but neither I nor any of my classmates knew what it was and what subjects would qualify for the course. I had to go to the principal and asked him about it. After which, he arranged for me to meet with the Director of the Geological Survey, who gave me an introduction to geology. So I ended up with a scholarship to study geology at the University of Malaya. Serendipity, one might say, but it ended up as a good and

fortunate choice. Unfortunately, even after more than 30 years, school children are not exposed very much to geology.

What are your challenges as a geoscientist?

I worked 12+ years in the Geological Survey in Sarawak, and another 20+ years with Sarawak Shell.

As a geologist in the Geological Survey, the greatest challenge was mapping in the wilds of Sarawak, living in the jungle for weeks and trying to unravel the geology using small outcrops in streams and rivers. This is particularly challenging when you see only small scattered outcrops compared to spectacular expansive outcrops in 3D in temperate countries.

As an exploration geologist in the oil and gas sector, the greatest challenges are selling your ideas to management and convincing to risk millions of dollars to enter into an acreage and eventually to drill your prospects.

What is your greatest moment of joy as a geoscientist?

As a geologist in the Geological Survey, my greatest moment was when my reports and map were published.

In the oil and gas sector, the greatest moment as an exploration geologist would be when one is involved with and participated in making an oil and gas discovery. The excitement and joy one experienced when the well logs from a wildcat well showed that a significant column of hydrocarbon is present cannot be described.

What are your advice to the younger generation of geoscientists to be a good geoscientist?

My advice to the new breed of geoscientist: You must be well grounded in the basic fundamentals of geoscience and you must continue to improve and upgrade your knowledge, especially when you enter into the work environment. Despite the advance and hype about IT and computer power, the computer is there only to facilitate your work and to make the number-crunching faster – it is not there to replace the human brain. Remember always that ideas, innovations, great thoughts and discoveries come from the human brain and not from the computer.

To all the young geoscientists entering into the profession, I wish you all good luck and success and hope that you will enjoy your profession as much as I had.



Interview with Dr. Peter H. Stauffer*

What is your greatest moment of joy as a geoscientist?

I have to admit that the sharpest actual moment of joy in my career was not really geoscience so much as historical sleuthing. It came in the early 1980's, when I discovered that several localities of alleged tektite finds shown on published maps of Borneo were in fact erroneous "phantoms" and figured out how they got there. While compiling information on tektite localities in Malaysia, I wanted to include these localities shown in nearby parts of Indonesian Borneo (Kalimantan). Searching the literature to find out more about them led to a blank—until one morning I suddenly realized that it was all a series of mistakes by a succession of past workers working in several different languages who misinterpreted place names in earlier works. In minutes the whole story fell into place. I remember I was so pleased and excited I went straight next door to Professor Charles Hutchison's office to show him what I had found. My results were published in *Meteoritics* in 1983. Maybe it wasn't really geoscience, but was it ever fun!

In terms of more serious geological discovery, I think my greatest satisfaction was from piecing together the evidence that the pebbly mudstones in the Singa Formation in Langkawi, and correlative units in Thailand, Burma, and Sumatra, represented glacial marine sediments. This interpretation implies the presence of icebergs to drop the outside clasts (dropstones) and therefore the proximity of this region in the late Paleozoic to continental ice sheets or large calving glaciers, which almost certainly had to be on the continent of Gondwanaland. The chain of logic thus ran from the detailed sedimentological character of the rocks in Langkawi, through paleontology and reconstruction of the regional paleogeography, to major implications for the tectonic evolution of Southeast Asia.

* This part of the interview was published in page 194 of *Warta Geologi*, vol 30(5), Sept-Oct 2004. The second paragraph was not published. The Editor regrets for the omission.

Opinions

To further promote experience sharing within the geoscience community, "Opinions" is established. GSM members are encouraged to share their opinions in any matter that has an impact to the geoscience community, particularly in Malaysia. Views expressed by the contributors of this section are entirely their own and do not in any way reflect those of the Geological Society of Malaysia.

In this issue, En. Abdul Rasid Jaapar, the current Secretary of the Society, continues to share his opinions regarding issues in the redefinition of GSM.

ISSUES IN REDEFINITION OF GSM PART III: SWOT analysis and branding GSM

ABD RASID JAAPAR
e-mail: secretary@gsm.org.my

"If you want to do something new, you have to stop doing something old" – Peter Drucker

"To change one's mind is rather a sign of prudence than ignorance" – Spanish proverb

This is the last part of my series of articles pertaining to issues in redefinition of GSM. My second article deals with responsibilities and strategic plans adopted by our society. As members, of course, we wish to see that strategic plans to be closely followed through until we can see fruitful results. As one always say, we want to see the light at the end of a tunnel. I strongly proposed that the adopted strategic plans to be printed at the end of our *Warta Geologi* replacing the map of Malaysia. I am not sure whether the map is still necessary or not to be place at the back of our newsletter. Nowday, the world knows where Malaysia is, and many beautiful maps of Malaysia can be downloaded free from the net. The strategic plans must be there until all the plans are achieved. Be it another 5, 10, 15 or even 100 years from now.

For the last time, I hope members should consider reading this article until the end as we can share some of the ideas. If you don't bother to read these series of articles, then my articles will be just like another *monologue*. On the other hand, should you read and feel nothing, then GSM may become just like another *monolith*. Anyway, let's we go through the whole article and perhaps we can share something at the end of this article.

Key success factor and SWOT analysis

I try to explore the strengths, weaknesses, opportunities and threads (SWOT) that GSM faced from my point of view. Perhaps the result can be used as 'development plan' for GSM. Like any other non-profit knowledge-based scientific and professional organization, my analysis will cover four main areas;

- i) publications
- ii) memberships
- iii) activities and participations
- iv) financial and/or asset management.

The analysis was made at every five years interval based on Annual Report commencing from 1978 to 2003.

"It is not who is right, but what is right, that is important" – Thomas Huxley

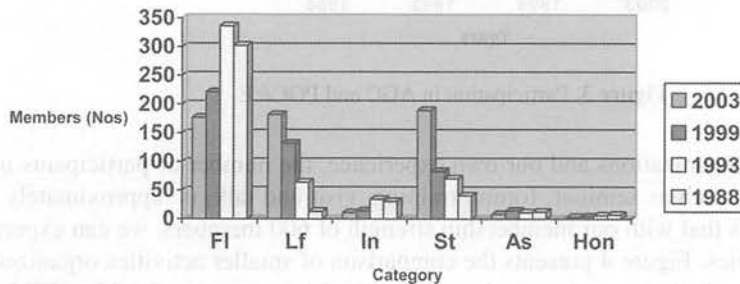
Publications

Publications had been issues for many years in our society, especially the newsletter, *Warta Geologi*, which could not be circulated on time. Hence, resulting in a lot of back-log publications. I understand the difficulties to keep publications up-to-date, especially when lack of materials for publication from members. These problems plus other problems such as crashed computer, incompatible software, etc. are enough to give headache to any editor. However, members, as society stakeholders, want to see result. They don't bother about the problems or the reasons. Fortunately, the issue is over now.

The main sources of technical papers are Annual Geological Conference (AGC) and Petroleum Geology Conference and Exhibition (PGC&E). GEOSEA which was held in 1983 featuring both AGC and PGC&E, was the main contributor for that year. Therefore, we can consider that the Bulletin of the Geological Society of Malaysia has enough technical papers to be published. The last Council had decided that GSM will publish its Bulletin twice a year i.e. one for AGC and another for PGC&E plus other papers. We may have approximately 30 to 50 technical papers to be published per year. These exclude papers presented in special/thematic seminars organized by Working Groups.

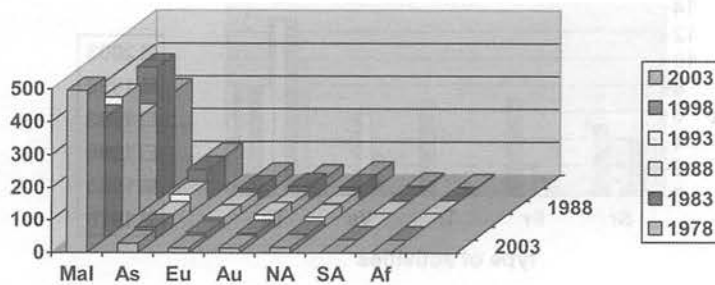
Membership

GSM like any other scientific or professional society is absolutely dependent upon its membership to survive. The members give GSM the power and strength to speak for the profession. Without members, GSM is a 'nobody' – a voiceless 'paper organisation' unable to gain any respect in any arena. In 2003, our membership stands at 570. GSM should look into targeting a membership number of 750 by 2007 (2007 is GSM 40th anniversary). Figure 1 presents the distribution of membership by category while Figure 2 presents the membership distribution by geographical area.



note: FI=full, Lf=life, In=institutional, St=student, As=associate, Hon=honorary

Figure 1. Membership by category



Note: Mal=Malaysia, As=Asia, Eu=Europe, Au=Australasia, NA=North America, SA=South America, AF=Africa

Figure 2. Membership by geographical area

Bear in mind that based on membership studies on non-profit scientific and professional organisations, only 25% of the total numbers of professional in the country will be members of the association that is related to their profession. If we currently have a total of 2,000 geologists in the country, it is very likely that only 500 geologists will register as members of GSM. Hopefully, by 2010 when we have 4,000 geologists in Malaysia, then GSM can get 1,000 members. To-date, GSM membership from Malaysia has yet to hit 500.

Activities and participation

GSM core activities such as Annual Geological Conference (AGC) and Petroleum Geological Conference and Exhibition (PGC&E) are progressing very well. While PGC&E always have very good participation, sponsorship and profit, AGC is becoming less attractive as the same old faces attend the event almost every year. Maybe, it is timely that AGC to be renamed to reflect its true coverage - not only on geological aspects but any aspect pertaining to the earth and its environment. Name such as “Annual Conference on Earth Science and the Environment” may attract other scientists, technologists or engineers who have interest with the earth and its environment. At least we can share ideas with other fields of science. However, it really up to GSM members to decide. Figure 3 shows comparison of number of participants in AGC and PGC&E. We can see a decreasing trend in AGC as compared to PGC&E.

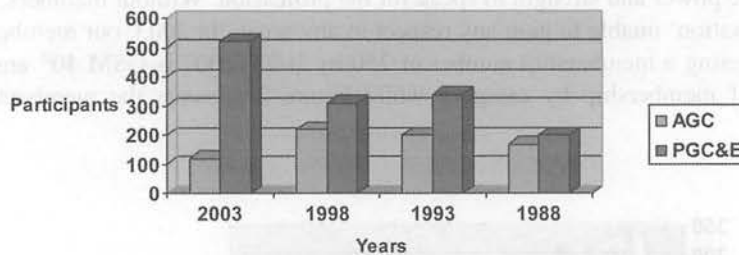
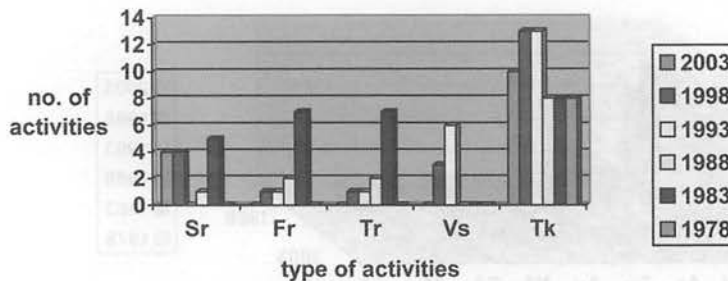


Figure 3. Participation in AGC and PGC&E

Normally, based on other organizations and our own experience, the number of participants in smaller events organized by Working Groups, such as seminar, forum, training, visit and talk, is approximately 10% or less of the total membership. It means that with our membership strength of 600 members, we can expect a maximum of 60 or less in any smaller activities. Figure 4 presents the comparison of smaller activities organized by GSM or its Working Group. My main worry is that very few or almost no site visits were organized by GSM. Site visits were very active only between 1993 and 1998. As a practising geologist, I believe site visit or field trip is essential to enhance a geologist's basic skills.



Note: Sr=seminar, Fr=forum, Tr=training, Vs=visit, Tk=talk

Figure 4. Comparison of other activities

Financial and Asset Management

GSM is no longer a half a million ringgit society. Why? You can go through Annual Reports for previous years and you can see that the main cause was publications. Based on some non-profit and non-government organization (NGO) 'gurus', the normal ratio of 1:1000 (after a decade in existence) is always true to be a guideline to monitor the success of any NGO in its financial management. The ratio means that one member is equivalent to RM1,000. In the case of GSM, we are on the right track at one time when the society have 600 members and at the same time we have RM600,000 worth of asset after decades in operation. Figure 5 presents GSM assets value over the years. Hopefully, we can recover all the losses we made.

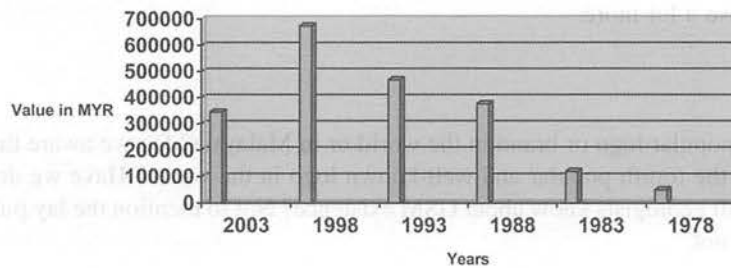


Figure 5. GSM assets value

Final analysis

Over the years, GSM has been continually making conscious efforts to establish itself internationally. The performance of GSM to-date can be considered as satisfactory and the key success factors for the future are identified as follow:

- i) Support from universities and government agencies such as JMG, MACRES, etc.
- ii) Dedicated and competent work-force in term of council members, organising committees, working groups, etc.
- iii) Increasing effectiveness in management and services.

The key strengths of GSM lie with its members, culture and values. Financially, GSM is considerably sound. Its low operating cost, cheap membership fees plus zero bureaucracy in membership application process constitute other areas of strength. GSM has established its own strengths throughout the years.

The weaknesses of GSM are within the organisation itself. Some members still want GSM to remain status quo. Unwillingness to operate GSM professionally where profits count, unnecessary worry about mild and positive publicity and reluctant in changing the image of GSM are weaknesses. Some members even worry that GSM will lose rather than gain if GSM would to own its own building. GSM needs to overcome such resistances in order to overcome all the weaknesses.

The opportunities available to GSM come from local and international arena. Locally, there is essentially room to grow and therefore efforts should be spent in identifying and capitalising these opportunities. The increasing number of intakes of geoscience undergraduate students in every geoscience department in local universities must be considered as a potential area where future members and leaders of GSM can be tapped and groomed. While on the international opportunities, GSM, being one of the oldest geological society in South East Asian region, must also take steps to re-initiate the long overdue Union of Geological Societies in South East Asian (GEOSEA). Good relations with the oil and gas exploration companies in the region have put GSM in a better position. Regional Geological Conference of South East Asian must be conducted more frequently. The advantage of the development and competition of Low Cost Carrier (LCC) must be fully utilized.

The threats to GSM are the competitors at regional as well as at national level. Similar organisations in this region such as South East Asian Exploration Society (SEAPEX) and others, in which their existence to compliment GSM, and give a healthy competition to GSM may also cause threats to GSM. GSM may lose participation to some of the events initiated by them if GSM does not really improve what GSM has initiated. Members may no longer have interest to attend GSM functions and ultimately the number of members will decline. Members may also join other professionally run organization. While at national level, we can see a number of organizations which have similar functions as GSM mushrooming. Such organizations include the Ipoh-based Malaysian Karst Society (society to protect and preserve imestone hills and caves), Malaysian Rock Society (society for rock collectors or geo-art lovers), Cave Group of Malaysian Nature Society (a group that organized caving or speleology activities). And I am not surprise within a few years, other group of people will take the advantage of tsunami and related disaster to create association such as Malaysian Earthquake Association or Malaysian Geodynamic Association. Later not sooner, GSM will lose a lot more.

Branding GSM

Do you know what is the popular logo or brand in the world or in Malaysia? Do we aware that the panda bear used by WWF as their logo is the fourth popular and well-known logo in the world? Have we do survey on GSM logo/brand, products, etc? Do all geologists know about GSM existence? Not to mention the lay public whether they are aware on our existence or not.

Brands have never been more important than they are today. Branding is not just about having a logo like the Petronas Twin Towers but it is also about projecting the positive attitudes and behaviour to GSM members as well as the public. Growing a strong brand is not only pertinent for private sector companies, but it is also fast becoming a necessity for countries as globalisation sets in. And of course, NGO, especially the professional and scientific organization like GSM, also needs branding. More and more organisations are rising their branding efforts to differentiate themselves in order to remain relevant, attractive and respected.

Strongly branded organizations often express a quality to which its members and lay public can relate to. In order to survive and grow further regionally and globally, GSM needs to clearly define its “spirit and soul”, which can then be diffused to all members for a branding effort. Building a strong brand for GSM is of ultimate importance to the geological fraternity and the profession in this country. GSM for sure can provide “first world services at third world prices” as our fee is cheaper compared to other organisations.

We have to start our initiative to brand GSM like other professional organizations such as Institution of Engineers Malaysia, Bar Council, Persatuan Arkitek Malaysia, etc. So many natural disasters happened lately and it a high time to start branding GSM. Tell the lay public that we exists and our existence is to help them. GSM, as one of the oldest geological societies in SEA, should progress far better compared to any geological societies in the region. Cooperation between all geological societies within this region must be enhanced.

At the 2004 Asean Summit in Vientiane, Laos, Leaders of the region came away beaming at the prospect of finally realising ‘the creation of East Asia Community (EAC), comprising the 10 members of Asean, China, Japan, South Korea, Hong Kong and Taiwan. While the future regional integration take place, GSM must be prepared and take a lead in initiating the geological community of East Asia. There are so much economic activities related to geology such as mining, petroleum exploration, etc.

Mr Matthew de Villiers, CEO of FutureBrand Asia Pacific in his presentation entitled “Corporate Branding: Be unique to be effective” organized by Malaysian Institute of Management summarized the seven commandments of brands and branding:

- i) Brands must tell a story
- ii) Effective positioning is the key to longevity
- iii) Unite all essential communication
- iv) Create a common sense of purpose among all employees (members)
- v) Build trust and think local

- vi) Ensure continuous renewal of brand through innovation
- vii) “Carpe Diem” – seize the moment!

Forgotten events

We, geologists pride ourselves on our ability to draw useful conclusions from tentative and fragmentary data. So what kind of picture can we paint about our GSM. Here are some of the very good events that were forgotten for you to ponder for all of you:

- The fieldtrips, field meetings or expeditions used to be one of GSM core activities must be re-activated by younger and energetic members. With all these, only we can enhance our skills at the field. Remember!! Geologist’s office is in the field.
- Annual events, especially Annual Geological Conference (AGC), must be re-visited, re-engineered or re-invented to give a new breath and look to attract more participation. Quality of papers presented must also be looked into.
- A Young Geoscientist Award mooted by N. S. Haile in 1978 in recognition for good publications by young geologists below the age of 30 must be re-activated. The award should be named after the late Professor Haile and can be known as ‘N. S. Haile Young Geoscientist Awards’.
- GSM Best Students Award introduced in 1991 must be fully monitored by GSM and not only by universities. GSM should be involved and the award presentation to the student should also be made by GSM on top of the geological department of the universities.
- Geoscientist Award initiated in 1995 must be officially re-activated. Should there be no members qualified to this award, then we know that our profession is not progressing well. The award can be named after the first secretary, D. J. Gobbett.
- Special lectures by prominent geoscientists from all over the world must be initiated. This is a great opportunity to share and upgrade our knowledge. The lecture must be on rotational basis between different branches of geology.

Concluding remarks

I am interested to hear from all GSM members. YOUR INPUT IS VERY IMPORTANT. Please let me know what GSM can do for you or what you would like to do for GSM. Let me know what we are doing well, where we can improve, and what you would like to see in the future. You can email to me at secretary@gsm.org.my or by SMS or calling me at 019-3555915. Where there is a will, there is always a way. We must come up with that political will to turn around the society.

“God changes not what is in the people, until they change what is in themselves” – The Koran, 13:11



Letter from GSA President

3 February 2005

Geological Society of Malaysia
c/o Department of Geology, University Malaya,
50603 Kuala Lumpur, Malaysia.

Dear Colleagues,

The Geological Society of America expresses its condolences for the loss of life, injuries and other damage suffered by the people of your country as a result of the recent tsunami. GSA is a scientific organization dedicated to the dissemination of knowledge about how Earth functions, and such a cataclysmic natural disaster reminds us of the need for public understanding of the Earth and its processes. We will rededicate our scientific and educational efforts in the area of natural hazards for early warning and preparedness, as well as recovery. If there are specific ways in which our organizations might collaborate to assist you in your work, we stand ready to help.

Sincerely,
William A. Thomas
GSA President

Up Coming Events

2005, March 14-15

**2ND INTERNATIONAL CONFERENCE: CLAYS IN
NATURAL AND ENGINEERED BARRIERS FOR
RADIOACTIVE WASTE CONFINEMENT**
Tours, France

Contact: Martine Klajman, Fax: 33 1 46 11 84 10 Email:
meeting2005@andra.dr

2005, May 7-12

**31ST ITA WORLD TUNNEL CONGRESS AND GENERAL
ASSEMBLY**
Istanbul, Turkey

Contact: Congress Secretariate: Mrs Esin Genel Mudurlugu, F-Blok
Kat 1 Yucetepe 06100, Ankara, Turkey.
Tel: +90 312 418 7905; Fax: +90 312 425 8210

2005, May 25-27

**GEOPHYSICS FOR GEOLOGISTS AND PETROLEUM
ENGINEERS**

London, UK
Contact: PEICE, 11200 Richmond Avenue, Suite 100, Houston TX,
77082 USA.

E-mail address: easton.wren@peice.com

2005, June 5-11

SEVENTH INTERNATIONAL CONGRESS ON RUDISTS
Qustin, Texas, USA

Contact: Debra Sue Trinke, Treasurer, 7th International Congress
on Rudists, PO Box B, Austin TX 78713-8901, USA
Website: <http://www.tmm.utexas.edu/npl/rudist2005/>

2005, June 10-13

**NAPC 2005-NORTH AMERICAN PALEONTOLOGY
CONFERENCE**

Dalhousie, New Brunswick, Canada

Contact: Email: David.Scott@Dal.CA; Website:
www.ucmp.berkeley.edu/napc/2005/

2005, June 27-29

**RAPID EXCAVATION AND TUNNELING CONFERENCE
RETC 2005**

Seattle, USA

Contact: Tara Davis, SME, 8307 Shaffer Parkway, PO Box 277002,
Littleton, CO 80127, USA

Tel: +1 303 973 95501; Fax: +1 303 973 3845; Email:
davis@smentet.org; Website: www.smentet.org

2005, June 13-16

**THE 10TH ASIAN OIL, GAS & PETROCHEMICAL
ENGINEERING EXHIBITION**

Kuala Lumpur Convention Centre, Malaysia

Contact: Malaysian Exhibition Services Sdn. Bhd. Nadzeem Abdul
Rahman, Suite 1402, 14th Floor, Plaza Permata, Jalan Kampar, Off Jalan
Tun Razak, 50400 Kuala Lumpur, Malaysia.

Tel: +603 4041 0311

Fax: +603 4043 7241

E-mail address: nar@mesallworld.com

Up Coming Events

2005, July 3-8

3RD INTERNATIONAL CONFERENCE ON MATERIALS FOR ADVANCED TECHNOLOGIES (ICMAT 2005) AND 9TH INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS (ICAM 2005)

Singapore, Organised by Materials Research Society of Singapore in association with Institute of Materials Research and Engineering and Nanyang technological University

Contact: ICMAT Secreteriat, Materials Research Society of Singapore, c/o Institute of Materials Research and Engineering, 3 Research Link, Singapore 117602.

Tel: (65) 6874 1975.6778 1036; Fax: (65) 6777 2393; Email: icmat@mrs.org.sg; Website: www.mrs.org.sg

2005, August 3-6

INTERNATIONAL SCIENCE CONGRESS 2005 - Science for Humanity

Malaysian Scientific Association

Call for papers (oral/ poster)

Contact: Chairman, Scientific Committee, ISC 2005, Malaysian Scientific Association, Room 2, 2nd Floor, Bangunan Sultan Salahuddin Abdul Aziz Shah, 16, Jalan Utara, 46200 Petaling Jaya, Selangor.

website: <http://www.msa.org.my>

2005, August 18-24

THE FOURTH INTERNATIONAL SYMPOSIUM ON THE CAMBRIAN SYSTEM

Nanjing, China.

Contact: Website: <http://www.nigpas.ac.cn/cambrian-conference/index.htm>; Zhu Maoyan (mzhu@nigpas.ac.cn); Li Guoxiang (gxli@nigpas.ac.cn); Peng Qingqing (qqpeng@nigpas.ac.cn).

2005, August 20-23

SOCIETY FOR GEOLOGY APPLIED TO MINERAL DEPOSITS (8th Biennial Meeting)

Beijing, China

Contact: 8th SGA Biennial Meeting, Dr. Jingwen Mao - Secretary, Institute of Mineral Resources, Chinese Academy of Geological Sciences, 26 Baiwanzhuang Road, Beijing 100037, China;

Tel: +86 10 68 32 73 33; Fax: +0086-10 68 33 63 58 Email: mail@sga2005.com; Website: <http://sga2005.com>

2005, August 21-27

13TH INTERNATIONAL CLAY CONFERENCE- CLAYSPHERE; PAST, PRESENT AND FUTURE-ICC 2005

Waseda University, Tokyo, Japan

Contact: Prof. Takabumi Sakamoto, Secretary General 13th ICC, Faculty of Science, Okayama University of Science, 1-1, Ridai-cho, Okayama 700-0005, Japan.

Tel & Fax: +81-86-252-8922; Email: icc13@das.ons.ac.jp; Website: <http://www.soc.nii.ac.jp/cssj2/13ICC>

2005, August 22-26

13TH INTERNATIONAL SYMPOSIUM ON PLACER AND WEATHERED ROCK DEPOSITS (PWR-2005)-PLACERS AND WEATHERED ROCK DEPOSITS; FACTS, PROBLEM AND WAYS TO SOLVE THEM (Quadrennial Meeting, Workshops and Filed Excursions)

Perm, Russia

Organizers: Inter-Department Committee on Ore Formation and Metallogeny of RAS, Perm' Territory Administration, Perm' State University, IGEM RAS, IAGOD Commission on Placer Deposits (COPD), IGCP (Russian National Committee of Geologist).

Contact: Dr Vladimir Naumov, Scientific Secretary, ENI, Perm' State University, Genkel str, 4, perm' 614990, Russia.

Fax: (7-3422) 371480, Email: naumov@psu.ru, website: <http://nsi.psu.ru/PWR-2005>

2005, August 28- 2 September

10TH INTERNATIONAL SYMPOSIUM ON THE INTERACTIONS BETWEEN SEDIMANTS AND WATER

Bled, Slovenia

Contact: Email: iasws@ijs.si; Website: www.rcp.ijs.si/IASWA

2005, September

ENVIRONMENTAL (GEOLOGICA) PROBLEMS IN KARST (International Conference)

Belgrade, Serbia

Organised by the Yugoslav Committee of IAH (Contact): Email: jemcov@ptt.yu

2005, September 5-7

SUBMARINE MASS MOVEMENTS AND THEIR CONSEQUENCES: 2ND INTERNATIONAL SYMPOSIUM

Oslo, Norway

Contact: Website: www.geologi.no/submarine2005

2005, September 5-8

INTERNATIONAL SYMPOSIUM ON LATEST NATURAL DISASTER-NEW CHALLENGES FOR ENGINEERING GEOLOGY, GEOTECHNICS AND CIVIL PROTECTION

Sofia, Bulgaria

Contact: email: cic@cic-pco.com Website: <http://www.cic-pco.com>

2005, September 5-9

THE CRETACEOUS (7th International Symposium)

Neuchatel, Switzerland.

Contact: Karl B. Follmi or Thierry Adatte, Institut De Geologie, Universite' de Neuchatel, case postale 2, CH-2007 Neuchatel,

Switzerland; Fax: 0041-718 26 01; Email: karl.foellmi@unine.ch or thierry.adatte@unine.ch; Website: www.geol.unine.ch/

2005, September 7-9

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Up Coming Events

2005, September 13-15

7TH INTERNATIONAL CONFERENCE AND EXHIBITION OF OFFSHORE OIL AND GAS DEVELOPMENT

St. Petersburg, Russia.

Contact: Executive Committee: 24 Vavilova Str., Moscow 119991, Russia;

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2005, September 19-23

GEOCHEMICAL EXPLORATION (22nd International Symposium of the Association of Exploration Geochemists)

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2005, October 12-15

XXXI INTERNATIONAL MINING CONGRESS AND EXHIBIT

Veracruz, Mexico

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2005, November 6-11

GONDWANA 12 CONFERENCE: GEOLOGICAL AND BIOLOGICAL HERITAGE OF GONDWANA

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Contact: Convenors; Dr Carlos W. Rapela, Dr. Luis A. Spalletti,

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2005, November 7-11

20TH WORLD MINING CONGRESS & EXPO 2005

Tehran, Iran

Contact: email: info@wmce2005.com; Website:

www.20wmce2005.com

2005, November 13-15

GEOLOGY FORUM 05: FOCUS ON MINERAL EXPLORATION

Cape Town, South Africa

Contact: email: bwills@min-eng.com; Website: www.min-eng.com/geology/forum05/

2005, December

6TH EUROPEAN MEETING ON ENVIRONMENTAL CHEMISTRY

Belgrade, Serbia

Contact: Email: bjovanci@chem.bg.ac.yu

2005, December 4-7

PETROLEUM SYSTEMS OF DIVERGENT CONTINENTAL MARGIN BASINS: (25th Bob f. Perkins Research Conference of the Gulf Coast Section of SEPM Foundation)

Houston, Texas, USA

Contact: email: gcssepm@gessep.org; Website: http://

www.gessep.org

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