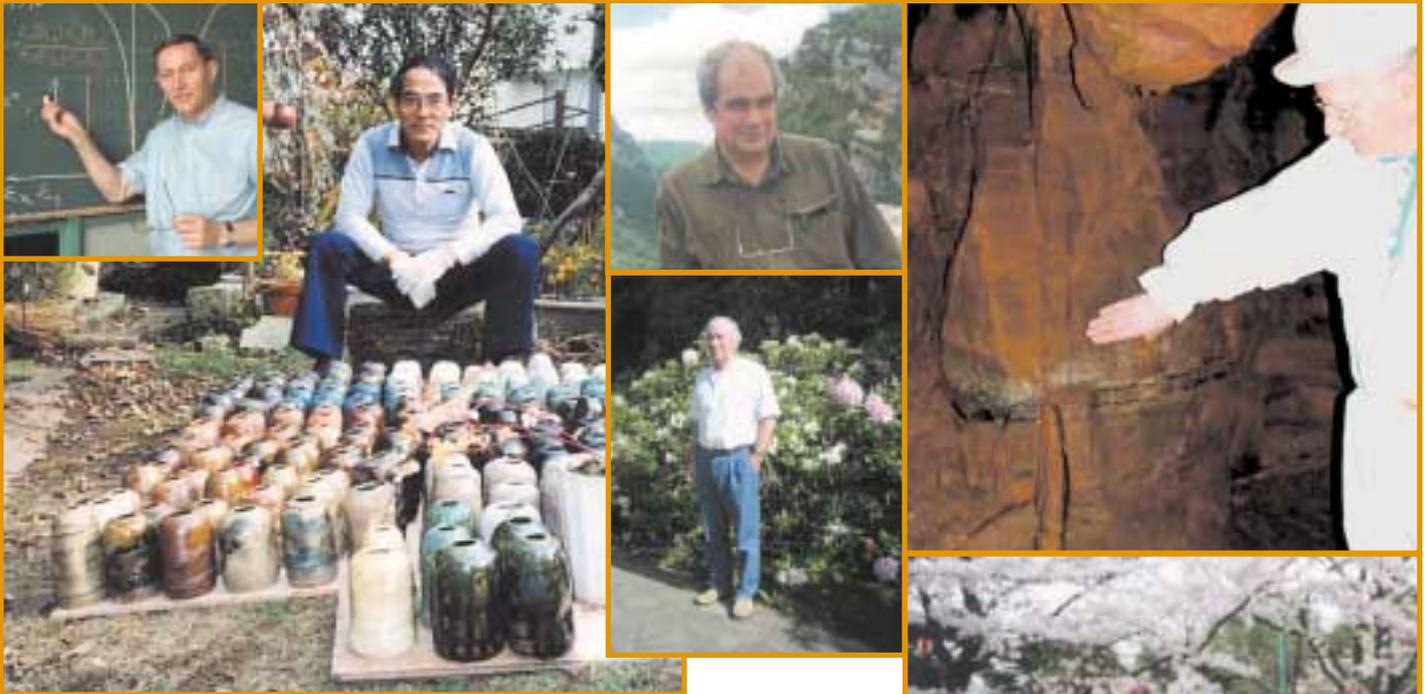


Société Internationale de Mécanique des Roches
INTERNATIONAL SOCIETY FOR ROCK MECHANICS
 Internationale Gesellschaft für Felsmechanik
NEWS JOURNAL



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ISRM Corporate Members

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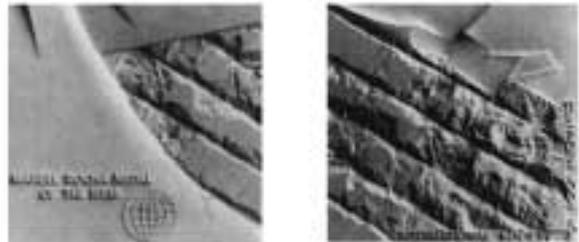
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ISRM Homepage

<http://www.isrm/net>
<http://www.lnec.pt/ISRM/>

Back issues (\$8) are available from the Secretariat.



Rocha Medal

A Bronze Medal and cash prize has been awarded annually since 1982 by the ISRM to honour the memory of Past President Manuel Rocha and to recognize outstanding young researchers in the field of Rock Mechanics.

The award shall be for an outstanding doctoral thesis in rock mechanics or rock engineering. The thesis must have qualified the candidate for a doctorate or the equivalent. To be considered for the award, a candidate must be nominated within two years of the date of the official doctoral degree certificate. The nomination should be submitted to the appropriate ISRM Regional Vice-President by registered letter, and may be presented by the nominee, the nominee's National Group or some other person or organization acquainted with the nominee's work. The nomination should include the following supporting information:

- ◆ *A one page curriculum vitae*, including the name, nationality, place and date of birth of the nominee; also position, address, telephone and fax numbers;
- ◆ *A thesis summary* in one of the official languages of the Society, preferably English, of about 5,000 words, detailed enough to convey the full impact of the thesis, and accompanied by selected tables and figures, with headings and captions also in English;
- ◆ *One copy of the complete thesis and one copy of the doctoral degree certificate*;
- ◆ *A letter of copyright release*, allowing the ISRM to make copies for review & selection purposes only.

Nominations for the 2005 Rocha Medal must be received by 31 December 2003.

Supplementary details of the selection procedure, conferring of the award, etc., are provided in ISRM By-Law No. 7, found on pages 30-31 of the ISRM Directory for 2000. National Groups and Corresponding Members will be officially reminded by the Secretariat as the deadline approaches, but are encouraged to consider possible nominees and to recommend names to the appropriate ISRM Regional Vice-President as early as possible.

News From the ISRM Board & Secretariat

2002 ISRM Board Meetings

The ISRM Board met at the Madeira Tecnopolo on 23 November 2002. The meeting took place in conjunction with the ISRM International Symposium "EUROCK 2002," also held in Madeira from 25 to 28 November.

The meeting chaired by the President of the ISRM, Prof. Marc Panet, was attended by all the Vice Presidents of the respective geographical areas except Vice President for Africa.

Matters as finances, budget for 2003, progress in the organisation of the 10th Congress, to be held in South Africa in 2003, first steps for the organisation of the 11th Congress to be held in Portugal in 2007, selection of Symposia to be endorsed by the ISRM, activity of ISRM Commissions and of the Interest Groups, *ISRM News Journal*, as well as other matters of interest to the Society, were dealt with. An action plan for improving the ISRM activity and raising membership was considered, the idea of creating a new Website for the Society under a new concept of a Communication Platform to be developed and implemented so as to enable greater benefits and lower expenses having been introduced.

Rocha Medal 2003

The Board, acting as the Rocha Award Committee, selected the prize-winning Ph.D. thesis for 2003 from among the six outstanding shortlisted theses for that year. The thesis "A Relative Moment Tensor Inversion Technique Applied to Seismicity Induced by Mining" by **Dr. Lindsay Marguerite Andersen** was selected. This work, supervised by Dr. A. Cichowicz, was submitted in 2001, for the degree of Doctor of Philosophy to the Faculty of Science, University of the Witwatersrand, in Johannesburg. The award will be conferred at the 10th ISRM International Congress to be held in South Africa this September.

News From The Secretariat

New ISRM Secretary General

Dr. Luis Lamas, LNEC's research officer was appointed as Secretary General of the Society due to Dr. José Delgado Rodrigues' quittance of that charge. Dr. Lamas started his office in the beginning of May.

ISRM Council Meeting 2002

The ISRM Council met in Madeira, Portugal on November 24. Twenty nine of the forty seven current ISRM National Groups were represented (twenty one in person and eight by proxy). Invited observers representing the ISRM Commissions and sister Societies also attended the Meeting. Besides discussing other matters of relevant interest to the Society, the Council took the following decisions:

Approvals

Approved the Minutes of the ISRM Council Meeting 2001, the Report of the ISRM Secretariat September 2001–September 2002), the Report of the Financial Situation of the Society (Running of 2001), and the Budget for 2003;

Muller Award

Selected Prof. Charles Fairhurst of USA as the Recipient for the 4th Muller Award;

2004 International Symposium

Selected the ISRM Symposium on Contribution of Rock Mechanics to the New Century, to be held in Kyoto JAPAN in December 2004, as the ISRM International Symposium for that year;

2003 Board, Council & Commission Meetings

Confirmed the Sandton Convention Centre in South Africa as the venue for the 2003 Board; Council and Commission meetings to be held in conjunction with the 10th ISRM International Congress in September.

ISRM Commission Meetings 2002

The ISRM Commission on Information Technology also met in Madeira last November. The meeting was chaired by the respective President, Prof. Ove Stephansson, and, at the Council meeting, the President of the Commission summarised the activity since their last meeting.

He presented a plan for achieving the proposed main goals (stimulate interaction, attract members, offer additional benefits to members, make the publication system cheaper, etc.) which would be performed through the ISRM Website under a new concept of a communication platform to be developed and implemented.

Farewell

It was a great privilege to have served as Secretary General of ISRM for about 13 years. During this time, I could count with the collaboration of all national groups and received the personal support of many individual members. I had the utmost collaboration of all the ISRM Boards and could count with a permanent affability of the Council members.

It could be tempting to try to make a balance of this period but I will not do it. The achievements belong to the successive boards and councils and these institutions are the ones that are in position to make such a kind of long term balances. I tried to interpret correctly my role as Secretary General, and this short balance is what I would like to leave as a farewell.

I would like to thank all the directorates of national groups for their kind acceptance of all our small or big daily life questions. I thank all the boards and commission members for their sympa-

thy and collaborative attitude. Thanks are also due to Laboratorio Nacional de Engenharia Civil for allowing me to spend part of my time with ISRM. Maria de Lurdes was a dedicated and careful collaborator and without her my work would have been much harder.

I remain available for all the ISRM members and bodies, should my opinion be requested. I wish all the best to you all,

— José Delgado Rodrigues

New ISRM Secretary General

Following Dr. Delgado Rodrigues's request to cease functions, Dr. Luís Lamas was appointed as the new Secretary General of the ISRM and started his office in May 2003.



Luís Lamas was born in 1957, in Lisbon, Portugal. He obtained his BSc in Civil Engineering at the University of Lisbon (1981), his MSc in Engineering Rock Mechanics at the Imperial College of Science and Technology, London UK (1986) and his Ph.D. at the University of London, UK (1993).

In 1981 he joined the Portuguese National Laboratory of Civil Engineering (LNEC), where he worked at the Underground Construction Division. In 1994, while keeping his position of research officer of LNEC, he moved to Macau to work at the Macau Civil Engineering Laboratory (LECM). From 1994 to 1997 his work consisted of geotechnical consultancy for several large projects, such as the reclamation of the artificial island for the Macau International Airport. In 1997 he was appointed Chairman of the Board of Directors of LECM and he kept this position until February 2003. He then returned to LNEC where he is currently a Senior Research Officer and the Head of the Foundations and Underground Works Division.

Dr. Lamas is a member of the ISRM since 1981 and has had an active participation in many activities of the Society, namely through the presentation of papers at ISRM sponsored symposia. He was a member of the Organising Committee of the 1993 ISRM International Symposium, Eurock-93, held in Lisbon, and of the Portuguese candidature to host the 2007 ISRM Congress.

Dr. Lamas is the author of a large number of publications dealing with rock engineering and other fields of civil engineering. His main research interests are in the hydromechanical behaviour of rock masses, tunnelling in rock and dam foundations.

Commission Report, continued from page 10

Strength Index (BPI)" published in the IJRMMS, Volume 38, No. 8, December 2001.

The production of a new suite of ISRM Suggested Methods on Rock Stress Determination is currently being arranged by Dr Francois Cornet and myself. These will appear in the IJRMMS in 2003. They consist of five separate SMs:

Part I: Strategy for Rock Stress Determination

Part II: Interpretation of Stress Indicators:
Geological Setting, Field Observations,
Borehole Failure Processes.

Part III: Overcoring Methods

Part IV: Hydraulic Fracturing Methods

Part V: Quality Control and Presentation of
Rock Stress Information.

As always, if anyone wishes to contribute to the production of the SMs, either these rock stress ones or any others, please contact me. The next initiative will be a suite of SMs on rock fracture geometry and mechanical properties.

— J. A. Hudson, October 2002,
jah@rockeng.co.uk

National Group News

Iran

The Board of the Iranian Society for Rock Mechanics for the term of office 2002-2004 is composed of the following members: Dr. Mojtaba Gharavi, President; Dr. Morteza Ahmadi, Secretary General; Mr. Mojtaba Kashfi, Treasurer; Dr. Abbas Majdi and Dr. Hossain Salari Rad, Members.

Israel

The Israel Rock Mechanics Association was established in 2001 and the membership for 2002 stands on 41 members from academia, research institutions, and industry.

The first professional meeting of IRMA took place in April 23, 2002 in the Maagan resort on the shores of the Sea of Galilee. Two sessions were held and 12 oral presentations were delivered by local experts on various issues of rock mechanics and rock engineering including: damage evolution in laboratory tests, theoretical models for salt diapir and dike emplacements, numerical analysis and validation of existing numerical codes, rock slope stability, and tunneling. The meeting took place during the annual meeting of Israel Geological Society and was well attended by over 60 persons.

The big event for IRMA during 2002 was the organization of ICADD-5, an ISRM Regional Conference, which was scheduled to take place at Ben-Gurion University, Beer-Sheva in October. Due to the sensitive situation in the region it was decided to relocate the conference and to hold it in China instead. The Yangtze River Scientific Research Institute in Wuhan hosted the event which took place during 7-11 October, 2002 and was co-sponsored by ARMA, IRMA and the Chinese Society for Rock Mechanics and Engineering (CSRME). Two days of professional lectures in Wuhan were followed by a visit to the YRSRI, to the construction site of the Three Gorges Project, and to the completed Gezhouba Dam.

Thirty three scientists and engineers attended the meeting, 17 of whom arrived from outside China. The proceedings, *Stability of Rock Structures*, (complete reference: Hatzor, Y. H. (Editor) 2002. *Stability of Rock Structures*. Proceedings of the 5th International Conference on Analysis of Discontinuous Deformation. Balkema Publishers, Lisse, 239) were published by Balkema.

We thank our Chinese colleagues who responded to the challenge and arranged an excellent meeting under a very tight schedule. In particular Professor Dehou Wang—President of YRSRI, Professor Xuecheng Dong and Professor Wu Aiqing of the YRSRI are thanked for their kind hospitality and efficient organization. All attendants felt the meeting was a success and we all look forward to ICADD-6 which is scheduled to take place in Norway next year.

— Yossef H. Hatzor, President, IRMA

Japan

The Japanese National Group of ISRM has elected the following board of directors for the term of office 2003-2005: President, Dr. Yuzo Ohnishi; Chairman of secretarial board, Dr. Harushige Kusumi; Head of the committee of international communication, Dr. Yujing Jiang.

Norway

The Executive Committee of the Norwegian Group of Rock Mechanics (NBG) is as follows: Leader, Jan Rohde; Secretary, Therese Scheldt; Members, Arnstein Aarset, Helge Ruistuen, Elin Hermanstad, and G. Gronneng.

In 2002 the Group organised the conference “Bergmekanikkdagen 2002” held November 22, and gathered 183 participants. The papers presented to the Conference mainly described projects participated by Norwegian engineering geologists and rock mechanics engineers. Technical meetings were also organised dealing with:

- i) Injection of tunnels and caverns;
- ii) Petroleum related to Rock Mechanics — Current Challenges;
- iii) Anorthosite mines for production of Al;
- iv) Excursion to the Lunner tunnel;
- v) Use of the underground in Trondheim. The participation has varied between 7-97 participants at each meeting.

The activity plan for 2003 includes: 5 technical meetings and the conferences “Bergmekanikkdagen 2003” and “The Sixth International Conference on Analysis of Discontinuous Deformation,” ICCADD-6; Excursion to Switzerland; Commissioning of the publication “User’s guide for Geophysical Methods within Engineering Geology and Rock Mechanics”; Participation in the 10th ISRM International Congress in South Africa (3 papers from Norway).

The Group has a total of 229 ISRM Members, and the Secretariat contact is: Ms. Therese Scheldt (secretary), Norwegian University of Science and Technology, Faculty of Applied Earth Sciences, Department of Geology and Mineral Resources Engineering, N-7491 Trondheim, Norway; Phone +47 73 59 11 72; E-mail: therese.scheldt@iku.sintef.no; Website: www.bergmekanikk.com.

Turkey

A new Board of the ISRM National Group was elected for the term 2003-2004, which is composed of the following members: President: Prof. Aydin Bilgin; Vice President: Prof. Candan Gokceoglu; Secretary General: Mr. Hasan Sisman; Treasurer: Mr. H. Sinan Inal; Member: Mr. Umit Erdem.

ISRM Membership, Address Changes & Order Form

ISRM Membership

Are you a member of ISRM? If not, here is an easy way to join.

Individual Membership For just US \$25 you and/or your colleagues can receive a one-year Introductory membership which allows you to buy ISRM goods, attend ISRM symposia, and receive the ISRM Directory and the ISRM *News Journal*. Next year you will automatically receive a renewal notice from your ISRM National Group, if one exists, or from the ISRM Secretariat in Lisbon.

Corporate membership (\$200/year) provides your organiza-



tion with up to three yellow-pages listings of your services or products in the ISRM Directory, with access for advertising to a select international market of more than 6,000 rock engineers and scientists.

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Educational Materials

Publications, Edited By The Secretariat In Lisbon

*Disclaimer: The Suggested Methods documents were originally published as articles in the **International Journal of Rock Mechanics and Mining Sciences**. Accordingly, the ISRM cannot supply the original documents (which are in the **Journal** issues). All the items below are supplied as xerox copies.*

The following Commission documents are now available at the prices quoted in US dollars, plus air mail

Commission on Classification of Rocks and Rock Masses

- 1. Basic Geotechnical Description of Rock Masses, 1981 April, \$5.00

Commission on Computer Programs

- 2. A Survey of Computer Programs in Rock Mechanics Research and Engineering Practice, 1988 August, \$10.00

Commission on Recommendations on Site Investigation Techniques

- 3. Recommendations on Site Investigation Techniques, 1975 July, \$5.00

Commission on Research

- 4. Report on ISRM Fields of Activities 1986 April, \$5.00

Commission on Rock Grouting

- 5. Final Report, 1995 November \$10.00

Commission on Swelling Rock

- 6. Characterization of Swelling Rock 1983 October, \$5.00
- 7. Suggested Methods for Laboratory Testing of Argillaceous Swelling Rocks, 1989 October, \$5.00
- 8. Comments and Recommendations on Design and Analysis Procedures for Structures in Argillaceous Swelling Rock, 1994 October, \$5.00
- 9. Suggested Methods for Rapid Field Identification of Swelling and Slaking Rocks, 1994 October, \$5.00

Commission on The Teaching of Rock Mechanics

- 10. Report on the Teaching of Rock Mechanics, 1981 September, \$5.00

Commission on Terminology, Symbols & Graphic Representation

- 11. Terminology, 1975 July, \$5.00

Commission on Testing Methods

- 12. Suggested Method for Blast Vibration Monitoring, 1992 March, \$5.00
- 13. Suggested Methods for Determining Water Content, Porosity, Density, Absorption and Related Properties and Swelling and Slake-Durability Index Properties, 1972 October, \$5.00

- 14. Suggested Methods for Determining the Uniaxial Compressive Strength and Deformability of Rock Materials, 1972 October, \$5.00

- 15. Suggested Methods for Determining Shear Strength, 1974 February, \$5.00

- 16. Suggested Methods for Rockbolt Testing, 1974 March, \$5.00

- 17. Suggested Methods for Determining Hardness and Abrasiveness of Rocks, 1977 March, \$5.00

- 18. Suggested Methods for Determining Mode I Fracture Toughness Using Cracked Chevron Notched Brazilian Disc, 1995 January, \$5.00

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- 43. Supporting paper on a Suggested Improvement to the Schmidt Rebound Hardness ISRM Suggested Method with particular Reference to Rock Machineability, 1993 October, FREE

- 44. Supporting Paper on Determination of in situ Deformation Modulus: New Approaches for Plate-Loading Tests, 1997 December, \$5.00

- 45. Dynamic Phenomena in Mines and the Problem of Stability (133 pages), Dr. A.M. Linkov, \$30.00

46. **Curriculum Guide** (compiled by J. Franklin) This can be downloaded from the ISRM Commission on Education's URL: <http://www.polsl.gliwice.pl/~mak>.

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Isrm Commissions

Commission on the Application of Geophysics to Rock Engineering

(Report on Activities from August 2001 to August 2002) from Commission President Professor Koichi Sassa

The Commission held the 5th International Workshop on the Application of Geophysics to Rock Engineering on 7 July 2002 in Toronto, Canada, as part of NARMS-TAC 2002. Ten excellent invited papers and also progress reports of the two working groups were presented and followed by excellent enthusiastic discussions. This workshop was finished very successfully. The proceedings of about 80 papers were published. Full papers from this workshop can be found at www.liv.ac.uk/seismic/news/narms/narms.html.

The Commission published an issue of the *ISRM News Journal* with articles on the application of geophysics in rock engineering, including the effort for getting advertisements from some companies. This issue was published as Vol. 7, No. 1 December 2001.

The Commission published a special issue on the application of geophysics to rock engineering in the *International Journal of Rock Mechanics and Mining Sciences*. The special issue was published as Volume 38, Number 6, September 2001. The contents of this special issue are mainly based on the studies presented at the 1st & 2nd International Workshops on the Application of Geophysics to Rock Engineering. All papers have been significantly expanded to contain much new material and further considerations following the workshops.

As reported at the Council Meeting in Beijing, two working groups have been formed in the Commission. The proposed task of the first one is to make a suggested method for geophysical survey in rock engineering. That of the second one is to make a

suggested method for in-situ stress measurement from rock core using the Acoustic Emission technique. The second working group has already completed the first draft, and circulated it twice in the working group members for revision. The first draft of this suggested method was presented at the 5th Workshop in Toronto. It can be found at www.liv.ac.uk/seismic/news/narms/narms.html

On the first working group, the first draft of a part of the suggested methods is now going to circulate in the working group members for revision. An example of the proposed suggested method can be found at www.liv.ac.uk/seismic/news/narms/narms.html

The proceedings of the 4th International Workshop on the Application of Geophysics to Rock Engineering held in Beijing, China on 10 September 2001, including three keynote lectures from China, Japan and Korea. Thirteen papers (about 100 pages) were published. A CD-ROM containing all papers (some with colour figures) presented at the Workshop was made. The price of this CD-R is US\$30. If you are interested please contact Professor Kuniyoshi Katsuyama: Department of Rural Engineering, Faculty of Agriculture, Ehime University, 3-5-7 Tarumi Matsuyama 790-8566 JAPAN.

Fax: +81 89 946 9923. E.mail: katuyama@agr.ehime-u.ac.jp.

The contents of the proceedings from this workshop can be found at <http://web.kyoto-inet.or.jp/people/sassa/>.

Commission on Preservation of Natural Stone Monuments

Report on Activities in 2002 from Commission President Professor Chikaosa Tanimoto

Objective of the Commission: The purpose of this Commission is to clarify the deterioration

progress and mechanism of natural stone monuments as valuable world heritages from the rock mechanical point of view, and to suggest possible treatments for restoration and preservation through case studies and scientific publication through the following Tasks:

Task List

- Task 1: Collection of Case Histories (Collect representative case histories from Asia, Europe, Africa, Australasia, North America, and South America; and classify common symptoms)
- Task 2: Documentation of Rock Mechanical Features
- Task 3: Identification & Classification of Causes and Results
- Task 4: Available Tools for Measurements & Monitoring
- Task 5: Restoration/Preservation Works in the past
- Task 6: Mechanism and Progress of Deterioration (Classify the fundamental mechanisms and progress of deterioration concerning respective monuments)
- Task 7: Publicity/Publication (Workshops & Symposia in 2001–2004)

Achievement in 1996-2002

Collection case histories:

- Pyramids and Great Sphinx in Giza; Underground tombs and obelisks in Luxor; and Serapeum Cave in Saqqarah (Egypt/Africa)
- Bingling Temple, Dunhuang Mogao & Yulin Caves, and Longyou Caves (China/Asia)
- Angkor Thom (Cambodia/Asia)
- Mesa Verde National Park (USA/North America)
- Moai Statues in the Easter Island (Chile/South America)
- Stonehenge (UK/Europe)
- Cliff-scraped statues of Buddha in Kyushu (Japan/Asia)

- Masada Monument (Israel)

Listing of publications concerning rock weathering/deterioration in archaeological preservation.

- Monitoring moisture content around/in caves & damages of wall paintings in Mogao Caves, Dunhuang, China
- Geological survey and monitoring structural instability of Longyou Caves, Zhejiang, China
- Commission meeting 2001: Beijing, September 10 & 14
- International Workshop on Preservation of natural Stone Monuments, Dunhuang, China, September 15-18, 2001: A brief report is given below.

Future Meetings

- Field work and technical discussion at Dunhuang Caves in June & October 2002.
- Field work and technical discussion at Giza/Egypt in August 2003.
- Workshop on Rock Weathering & Deterioration in Kyoto, November 2003.
- International Symposium on Preservation of Natural Stone Monuments in Osaka/Nara, November 2004.

International Workshop

An International Workshop was organized by the ISRM Commission on the Preservation of Natural Stone Monuments, the Chinese Society for Rock Mechanics and Engineering, and the Dunhuang Academy from 15–18 September 2001 at Dunhuang Academy, Mogao/Dunhuang.

Opening Session

Opening Address by Prof. C. Tanimoto; Keynote Address by Prof. Fan Jinshi — “A Centennial History of Mogao Caves and Conservation Works”; Keynote Address by Prof. Li Zuixiong / “Conservation of Grottoes and Rock Monuments along Silk Road”

Keynote Address by Prof. Huang Kezhong / “The State of Preservation of Ancient Monuments and Sites in China”

Site Visit (1): Observed magnificent arts in caves; visit caves subject to deterioration problem; visit to the top of the cliff; vegetation & sand protecting area and demonstration of monitoring.

Third Day: September 17, 2001
TECHNICAL SESSION (1): Case History; “Stability of Masonry Tower of Bayon, Angkor Thom, Cambodia” by Y. Iwasaki; “Reconstruction of Moai Statues on Easter Islands and Conservation Works in Japan” by M. Sawada; “Conservation and Repair Works at Mogao Grottoes” by Wang Xudong; “Water Budget and Slaking at the Sphinx Site, Egypt” by C. Tanimoto

Site Visit (2): Geology, salinization, tectonic movement, etc. around Mogao Caves. Visit to Sanbei Mountains & Upstream of Daquan River with the guidance of geologists.

Fourth Day: September 18, 2001
Technical Session (2):

Monitoring and Interpretation Environmental Monitoring: Reports from several sites: Mogao by Dunhuang Conservation Institute (DCI) and Getty Conservation Institute (GCI); Sphinx in Egypt by GCI and Tanimoto Mission; Angkor Thom by Iwasaki; Representative sites in China by Huang; States of Rock weathering, environments, objectives of monitoring, principles of monitoring, instruments, obtained results, meanings of results, compatibility with heritage sites and so on.

Comprehensive Discussion: Review to respective cases; geotechnical aspect; groundwater behavior; classify possible causes of deterioration; possible treatment against wind and sand erosion; etc.

Technical Session (3):

Discussion of geotechnical points of view Roles of geotechnical engineering; suggestion to monitoring of deterioration and preservation/conservation techniques, etc.

Closing Session: Summarized the Workshop; publication of proceedings & discussion; future activity of the commission (e.g.

standardization weathering test onto rock specimens at different heritage sites; filing of case histories; collection of references, etc.); important interaction between archaeology and rock mechanics

Three (3) keynote addresses; 4 individual presentations; 1 full day discussion; 2 half-day technical visits; and 45 participants.

Prof. C. Tanimoto, Dept. of Global Architecture, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita City, Osaka 565-0871, Japan Tel: +81 6 6879 7622; Fax: +81 6 6879 7617; E.mail:

tanimoto@ga.eng.osaka-u.ac.jp

Isrm Commission on Testing Methods

Report on Activities from Commission President

Professor John A. Hudson

The main products of this Commission are the Suggested Methods (SM) documents which the ISRM generates in order to provide guidance on the measurement of rock properties both in the laboratory and on site. The new SMs are being produced via the accelerated process which was introduced in 1998. In this method, the Draft SM is produced quickly by the Working Group Coordinators (one or two people as the authors of the draft) and then published. This draft SM is then available for comment worldwide. Working Group Members and others then comment on this initial version, and the final SM is produced as a revised version of the Draft SM incorporating the review points. Also, the SMs now have specific authorship, and hence can be referenced in the same way as papers, which is of benefit to the Working Group Coordinators.

The ISRM Suggested Methods are published in the *International Journal of Rock Mechanics and Mining Sciences*. The most recent Suggested Method was the “ISRM Suggested Method for Determining Block Punch

Commission, continued on page 3

Candidates for the ISRM Board 2003-2007

Candidate for ISRM VP Africa

Martin J. Pretorius — S AFRICA

(nominated by the ISRM NG S AFRICA)

Statement

It is my belief that Africa is not only emerging as a more prominent provider of minerals and metals to the international community, but that Africa has the potential to offer greater technical expertise to the international community in future. This aspect has been identified by more of the African Leaders and hence the establishment of a body like NEPAD, an African initiative for the sustainable development of the African Continent.

Mining will play a very prominent role in this initiative, and this was confirmed during the Indaba 2003 Investment in Africa Conference, an annual international event held in Cape Town earlier this year.

Rock Engineering and Seismology are inseparable in the creation of a safe and production friendly mining environment. With this in mind, the role of the Rock Engineering Practitioner will therefore be paramount to safeguard the future of the mining industry. It is my objective to foster and create an environment where the technical expertise and ambitions of members of the ISRM can be combined with the objectives of the Leaders of this very precious continent to ensure a sustainable future. I am confident that we as ISRM have the will, talents and capacity to contribute towards the development of our continent.

Experience

Martin J. Pretorius obtained his B.Sc. in Mining Engineering (cum laude) at the Univ. of Pretoria, Pretoria S AFRICA, his GDE in Rock Mechanics at the Univ. of the Witwatersrand, Johannesburg S AFRICA, and his M.Sc. in Engineering at the same Univ. Currently, he is studying for his Ph.D. in Engineering at the Univ. of Pretoria.

During the past 20 years, he has been involved in the field of rock engineering and strata control. His expertise includes problems related to risk assessment, with the objective to quantify the risk in monetary value, for various mining related decisions and/or projects (as, for instance, issues related to the shaft pillar extraction, mining of particular pillars, remnant mining, and mining methods); due diligence, pre-feasibility, and feasibility studies, for



mining projects in the gold, platinum, and diamond mining sectors; design and quantification of stope support performance; mine design and mine layout; development and compilation of Codes of Practice to Combat Rock Burst and Rock Fall Accidents, in accordance with the guideline issued by the Chief Inspector of Mines; and product development, with the emphasis on the lightweight cementitious stope support. Currently, he is Director & Partner at SRK Consulting.

Mr Martin Pretorius is a member of the ISRM, through the South African National Institute of Rock Engineering (SANIRE) (the ISRM NG South AFRICA), and, currently, he is the President of SANIRE. He is also a member of the South African Inst. of Mining and Metallurgy, and a Registered Professional Engineer, in South AFRICA.

Mr Pretorius is the author of a number of publications dealing with rock engineering related topics. He was the recipient of an Awarded Merit Bursary by General Mining (1979), of Academic Honorary Colours from the Pretoria Univ. (1983), of the South African Bureau of Standards Design Inst. Award (1994), of a Special Technical Award from the Potchefstroom Technical High School (1995), and of the Business Development Person of the Year, SRK Consulting (1999). His professional qualifications include the Mine Manager's Certificate of Competency, and the Chamber of Mines Certificates in Rock Mechanics, and in Advanced Rock Engineering.

His specialisation is in the fields of rock engineering, strata control, mine design, mine layout, and risk assessment.

Candidate for ISRM VP Asia

Qian Qihu — CHINA

(nominated by the ISRM NG CHINA)

Statement

Asia is a vast region with large population. Since the First Asian Rock Mechanics Symposium (1st ARMS) held in Seoul in 1997, Asian countries have been very active in the field of rock mechanics and rock engineering. In 2001, China NG hosted the 2nd Asian Rock Mechanics Symposium as ISRM Annual Meeting; Japan NG hosted International Symposium on Tunneling. In 2002, Korea hosted the ISRM Regional Symposium the 3rd Korea-Japan Joint Symposium on Rock Mechanics. Moreover, China successfully organized



two international conferences in the same year: one was the 2nd International Symposium on New Development in Rock Mechanics and Rock Engineering, and the other was the 5th International Conference on Discontinuous Deformation Analysis of Rock. We believe these meetings will greatly contribute to the sustainable development of all Asian countries.

China is the largest developing country in the world with steady economic growth over recent years. The infrastructure construction is in full swing. The Three Gorges Project is a major international event, but there are also other important projects, such as the Mega Hydro-Projects for transferring water from southern to northern China and so on both underway and contemplated which underline the enormous challenges and opportunities in rock mechanics and rock engineering.

The Chinese Society for Rock Mechanics and Engineering (CSRME, China NG ISRM) with a total membership of near 13,000 individuals is an active member of ISRM. Looking forward to the future, we are willing to make greater contribution to ISRM.

If I am elected as the ISRM Vice President for Asia, I would like to concentrate my efforts on following issues:

- To continue the organization of more ISRM sponsored symposia in Asia
- To promote and expand ISRM activities to various Asian countries, especially to those of developing countries
- To promote joint symposia or workshops among Asian countries and other countries in the world
- To enhance more collaboration with sister Societies.

I fully understand all the views related to the nomination of Vice-President ISRM from ISRM President-Elect, Prof. Neilen van der Merwe and will pledge my utmost effort in my position.

Experience

Qian Qihu was born in 1937, in Kunshan (Jiangsu) CHINA. He obtained his B.Sc. in Civil Engineering at the Harbin Military Engineering Inst., Harbin CHINA (1960), and his Ph.D. in Technical Sciences (summa cum laude) at the Gubichev Military Engineering Academy, USSR (1965).

He is Vice-Chairman of the Engineering Management Div., and has been Vice-Chairman of the Civil Engineering Div. (1994-2001), of the Chinese Academy of Engineering. He is a member of a consulting group of the State Council, and Director for Asia of the International Associated Research Center for the Urban Underground Space. Concurrently, he is Prof. of the Tsinghua Univ., the Zhejiang Univ., and the Southeast Univ. He is also engineering adviser of the Nuclear Industry and Geology Bureau (Jiangxi).

Prof. Qian Qihu is a member of the ISRM, through the Chinese Society for Rock Mechanics and Engineering (CSRME) (the ISRM NG CHINA),

and, currently, he is the President of the CSRME. He is also Council member of the Chinese Civil Engineering Society, Chairman of the Defense Engineering Society of China, and member of the Editorial Board of the *Chinese Journal of Rock Mechanics & Engineering*, of the *Earthquake Engineering & Vibration*, and of the *China Civil Engineering Journal*.

Prof. Qian is the author of more than 100 scientific and technical papers, and 5 monographs, published in CHINA and abroad. He obtained several national technical science awards or prizes from the National Congress on Sciences, and the National Commission on Science & Technology (State Council of China), for outstanding contributions in the fields of rock and soil mechanics, and related engineering. In 1990, he won the titles of Outstanding young and middle aged specialist of China (approved by the State Council of China), and of Advanced scientist in the universities community of China. Furthermore, he is Honorary Chairman of the Chinese Society for Blasting Engineering, of the Donghua Science & Technology Inst., and of the Civil Engineering Inst. of the Shandong Science & Technology Univ.

His research interests are rock mechanics and engineering, civil engineering, underground space, blasting engineering, and, professionally, he was involved and took charge in many projects of rock and soil engineering, underwater tunnels, underground space utilization, blasting engineering, etc.

Candidate for ISRM VP Asia

Angamuthu Varadarajan — INDIA

(nominated by the ISRM NG INDIA),

Statement

Many of the Asian countries are developing hydraulic and hydroelectric power projects, infrastructure projects and mining projects. These projects use underground structures and foundations of dams and deal with natural and man made slopes. More often these are located in/on rock masses.

Engineering activity involving rock mass require primarily the following in addition to mapping structural features such as folds, faults and joints.

- a. Identification and classification
- b. Testing and characteristics of the behaviour
- c. Analysis and design



d. Construction and performance monitoring

The characteristics of the rock mass present in various countries are generally unique.

The experience of one country/region can be of great use to another country/region. I propose the following to facilitate interaction and exchange of information among various groups.

- i) Promote creation of databases of various engineering activity in various countries/region.
- ii) Promote communication and exchange of information through various tools of information technology.
- iii) Promote sharing of testing equipments and expertise among various groups.
- iv) Promote exchange of visits by experts among member countries.
- v) Promote organisation of symposium/workshops on topics of current interest.

Experience

Angamuthu Varadarajan was born in 1941 in INDIA. He obtained his B.E. in Civil Engineering at Annamalai Univ., Annamalai Nagar INDIA (1964), his M.Sc. (Eng.) in Soil Mechanics and Foundation Engineering at University of Madras INDIA (1968) and his Ph.D. in Civil Engineering at Indian Inst. of Technology, Kanpur INDIA (1973).

Since 1974, he is a faculty member of the Civil Engineering Dept, Indian Inst. of Technology, Delhi INDIA, and, currently, he is Dogra Chair Prof. He has been Visiting Prof. at the Univ. of Arizona, AZ USA (1985-7), and Visiting Academic at the Imperial College of Science and Technology, London UK (1980), and the Univ. College of Swansea, Swansea UK (1988).

Prof. Angamuthu Varadarajan is a member of the ISRM, through the Indian National Group of the ISRM (the ISRM NG INDIA), and, currently, he is the President of that Group. He is a member of the Board of Directors of the International Association for Computer Methods and Advances in Geomechanics (IACMAG) and of the Editorial Advisory Board of the *International Journal of Geomechanics*. He is also Fellow of the Institution of Engineers (India), and of the Indian Geotechnical Society (where he is an elected member of the Executive Committee).

Prof. Varadarajan has published more than 100 technical papers in journals and conference proceedings. He has guided 13 Ph.D. and 66 M.Sc. dissertations. He received several awards, including the Annual Lecture Award by the Indian Geotechnical Society.

He has participated in a number of research and consultancy projects in the areas of testing and constitutive modelling of rocks and rock-masses, analysis of underground structures and foundations of dams using Finite Element Method, Boundary Element Method and Distinct Element Method.

Candidate for ISRM VP Asia

Zhao Jian — SINGAPORE

(nominated by the ISRM NG SINGAPORE)

Statement

As an established international learned society, ISRM aims to increase the profile of rock mechanics in various engineering disciplines as an active and relevant subject in civil, mining, petroleum and hydropower engineering. ISRM therefore has an important role of promoting education, research and application of rock mechanics in various engineering disciplines. The social and economic development in Asia will lead to extensive development related to energy and resources, infrastructure and construction, and much of such development are related to rock mechanics and rock engineering. This also provides ISRM the opportunity to extend its actives in Asia through concerted promotion and exchange programs.



As a Vice President for Asia, my goal would be:

- To promote rock mechanics and ISRM activities in Asia, and promote exchanges of rock mechanics research and rock engineering experiences between Asia and the World.
- To increase the profile of ISRM in Asia as an active and relevant learned society and to improve the involvement of rock mechanics in civil, mining, petroleum and hydropower engineering activities in Asia and internationally.
- To encourage countries and regions in Asia participating ISRM activities and to support ISRM National Groups in Asia in organizing conferences, exchange programs and technical activities.
- To cooperate close with ISRM sister organisations, such as ISSMFE, IAEG and ITA, in Asia and internationally.

In practical terms, during the term as VP Asia, I will visit all the ISRM member nations and nations wish to be ISRM members in Asia, to support the national groups in organizing conferences and exchange activities, and to promote ISRM membership in Asian countries and regions.

Experience

Zhao Jian was born in 1960. He obtained his B.Sc. in Civil Engineering at the Univ. of Leeds, UK (1983), and his Ph.D. in Rock Mechanics at the Imperial College, London UK (1987).

In 1990, he joined the Nanyang Technological Univ. (NTU), SINGAPORE, as a faculty in the School of Civil and Environmental Engineering, to initiate rock mechanics teaching and research. In 1995, he set up the rock mechanics and underground space research group, and, in 2001, he established the Underground Technology and Rock Engineering (UTRE) Program in the NTU, as an integrated centre for research and application of rock mechanics in the underground space development. He has pioneered the rock cavern development in SINGAPORE, and has been a principal advisor to Singapore government agencies on underground space development. He has also been a consultant to local and international firms, on many rock tunnelling and other rock engineering projects. Presently, he is Chair of the UTRE Program, and, in addition, also a CKSP Distinguish Adjunct Prof. of the China Univ. of Mining and Technology, CHINA.

Prof. Zhao Jian is a member of the ISRM, through the ISRM Singapore National Group (the ISRM NG SINGAPORE), having been its Founding Chairman. He has also been an Executive Council member of the ITA, the Founding Honorary Secretary of the Tunnelling and Underground Construction Society (Singapore), and the Chairman of the 30th World Tunnel Congress, and of the 4th Asian Rock Mechanics Symposium Advisory Committee. He is a Senior Editor of the *Tunnelling and Underground Space Technology* international journal, and an Editorial Board member of the *International Journal of Rock Mechanics and Mining Sciences*, the *Chinese Journal of Rock Mechanics and Engineering*, the *Chinese Journal of Engineering Geology*, and the SE Asia Geotechnical Society's *Geotechnical Engineering* journal.

Prof. Zhao is the author or co-author of 1 book, 3 monographs, and 180 papers (including more than 60 papers in technical journals), and the editor of 3 volumes. He received the Richard Wolters Prize of the IAEG (2000).

His recent research has been primarily in the field of the stability and support of rock structures under dynamic loads, the behaviour of rock material and rock masses under dynamic loading, rock dynamic testing methods, the effect of discontinuities on the shock wave propagation, discrete element modelling, the rock-TBM interaction in the tunnelling, and hydro-thermo-mechanical properties of rock fractures.

Candidate for ISRM VP Australasia

John St George — New ZEALAND

(nominated by the ISRM NG New ZEALAND)

Statement

The Australasian region of the ISRM has two very active national groups, the Australian Geomechanics Society and the New Zealand Geotechnical Society, both of which also serve the ISSMFE and IAEG. The two groups work together closely and organise a regional conference on geomechanics. The next ANZ Geomechanics Conference is planned for Auckland, New Zealand in February 2004. As VP for the region, I will endeavour to promote the close co-operation and involvement between the national groups.



Within both groups there is a strong support for students and young professionals and I intend to encourage further support in this area.

Our region is dominated by the Australian membership which has a strong affiliation with the mining industry. I believe coming from a mining background will enable me to integrate with the Australasian rock mechanics community and express their views to the Society. As an academic I have contacts in most of the major institutes in the region concerned with rock mechanics. These would be useful communication channels for disseminating.

Experience

John St George obtained his B.Sc. in Mining Engineering at the Imperial College, London UK (1973), his M.Sc. in Rock Mechanics and Excavation Engineering at the Univ. of Newcastle, UK (1976), and his Ph.D. on Probabilistic Methods Applied to the Slope Stability at the Univ. of Auckland, New ZEALAND (1991).

After obtaining his B.Sc. degree, he worked in the minerals industry, in ZAMBIA. Having received his M.Sc. degree, he worked in consultancy, in the UK, and then took up an appointment at the Univ. of Otago, New ZEALAND, in the Dept of Mineral Technology. From there, he moved to the Univ. of Auckland, currently being a Senior Lecturer in its Dept of Civil and Environmental Engineering, teaching courses in the geomechanics and environmental areas. He is also actively involved in consulting, on a wide range of projects.

Dr John St George is a member of the ISRM, through The N Zealand Geotechnical Society (NZGS) (the ISRM NG New ZEALAND).

Dr St George's professional qualifications include Chartered Engineer, member of the IMMM, Fellow

of the Australian Inst. of Mining and Metallurgy (AusIMM), and member of the International Society of Explosives Engineers (ISEE).

Currently, his research interests are in the permeability and strength of coal, subsidence and vibrations.

Candidate for ISRM VP Europe

Claus Erichsen — GERMANY

(nominated by the ISRM NG GERMANY)

Statement

My goals as a member of the ISRM-Board and ISRM-Vice-President for Europe would be the following:

- to promote the exchange in rock mechanics and rock engineering within the European Countries and the ISRM
- to increase the application of rock mechanics in rock engineering with regard to a safe and economical construction in rock and to an assessment and a minimization of geotechnical risks
- to integrate students and young engineers within the ISRM
- to promote the cooperation with sister societies like ISSMFE, ITA, IAEG, ICOLD, IGS, SPE



Experience

Claus Erichsen was born in 1956, in GERMANY, is married, and has three children. He obtained his Dipl.-Ing. in Civil Engineering at the Technical Univ. of Hanover, GERMANY (1983), and his Ph.D. in Rock Mechanics at the Inst. for Foundation Engineering, Soil Mechanics, Rock Mechanics, and Waterways Construction of the Technical Univ. of Aachen (RWTH), GERMANY (1987).

From 1983 to 1989, he worked, as a research engineer (1983-7), and as a senior academic official (1987-9), at the Inst. for Foundation Engineering, Soil Mechanics, Rock Mechanics, and Waterways Construction of the RWTH. In 1989, he joined the engineering firm Prof. Dr-Ing. W. Wittke Consulting Engineers for Tunnelling and Geotechnical Engineering (WBI), Aachen GERMANY, firstly as Director of the branch in Stuttgart, GERMANY, and, since 1995, as Managing Director in the main office, in Aachen.

Dr Claus Erichsen is a member of the ISRM, through the Deutsche Gesellschaft für Geotechnik e.V. (DGGT) (the ISRM NG GERMANY), and, since 1991, he is a member of its Board, and Head of the Rock Mechanics Section of the DGGT, as well as Chairman of the ISRM NG GERMANY. He organized the EUROCK 2000 ISRM-Sponsored Regional Symposium, 6 German Rock Mechanics Symposia, and a TBM-Tunnelling conference.

Dr Erichsen is the author or co-author of more than 70 publications and lectures on rock mechanics and rock engineering.

He has extensive practical experience in rock engineering related to many projects in Germany and abroad, concerning tunnelling, dam engineering, foundations, construction pits, slope stability, landfills, and underground repositories. Currently, he is involved in the design and construction of far more than 100 km of tunnels.

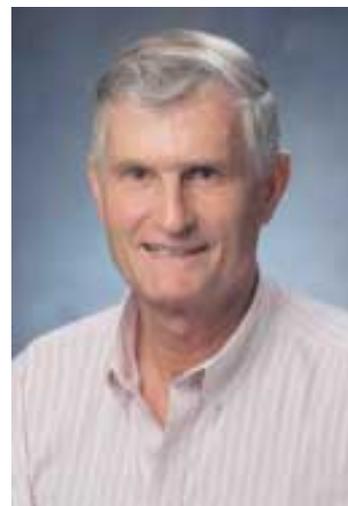
Candidate for ISRM VP North America

François E. Heuzé — USA

(nominated by the ISRM NG USA)

Statement

As President of the American Rock Mechanics Association (ARMA) and ISRM Vice President for North America, I will promote continued co-operation between Canada, Mexico, and the United States. ARMA has already assumed the task of organising the 2004 North American Rock Mechanics Symposium (NARMS) after our Mexican Colleagues were not able to perform that duty. On the Board of ISRM I will contribute as much as I can to the progress of informatic exchange among the members countries with emphasis on electronic communications.



Experience

François E. Heuzé graduated in Mining Engineering at the National School of Mines, FRANCE (1964), his M.Sc. in Civil Engineering at the Univ. of California, Berkeley USA (1967), and his Ph.D. in Civil Engineering at the University of California, Berkeley (1970).

Since 1966, he has been responsible for numerous projects in the areas of mine design, tunnel vulnerability, slope stability, rock and joint testing, rock fracture mechanics, underground nuclear waste storage, explosion effects, cratering, projectile penetration, hydrofracturing, mine seismicity, drilling, soil dynamics, and earthquake effects. Since 1970, he has provided expertise to over 20 US and overseas companies, on field testing, numerical modelling, laboratory testing, and performance assessment, in rock mechanics and rock engineering. From 1972-90, he has also taught numerous short courses on Geological Engineering and Rock Mechanics, in CA USA, CO USA, and WA USA, and, from 1975-9, he has been Associate Prof. in the Civil Engineering Dept of the Univ. of Colorado,

Boulder CO USA. Since 1995, he is a member of the Corporate Advisory Board of the Colorado School of Mines, and currently he is Leader of the Geotechnical Programs, at the Lawrence Livermore National Lab., Livermore CA USA

Prof. Heuzé is a member of the ISRM, and since 2002 he is the President of the ISRM National Group, American Rock Mechanics Association (ARMA). Also since 2002 he is Vice President at Large of the ISRM. He has been Co-Chairman of the 23rd US Symposium on Rock Mechanics, Berkeley CA USA (1982) and a member of the Steering Group on Technology, of the American Mining Congress (1992-94). He is also a Registered Professional Civil Engineer, in CA USA and CO USA.

Prof. Heuzé obtained 2 Case Histories Awards from the USNC/RM (1986 and 1998), and a Publications Board Award from the Society of Mining Engineers of the AIME (1982).

In the National Research Council of the US National Academy of Sciences, he has been member of the Geotechnical Board (1988-94), Chairman of the Panel on Tunnel Survivability (for the Defense Nuclear Agency) (1990-91), and member of the Board on Energy and Environmental Systems (1994-97).

Candidate for ISRM VP South America

Eda Freitas de Quadros — BRAZIL

(nominated by the ISRM NG BRAZIL)

Statement

One cannot discuss the main goals for the Vice-President of South American in the ISRM Board, without having in mind the political and economical situation of the region. In these last 10 years, strong political and economical changes have occurred as a whole in the South American continent, which affected almost all the branches of professional activities including those engineers working in the field of rock mechanics.

This situation has had a strong influence on the development of the South American Groups of ISRM (ISRM-NGs). In the beginning of the nineties, some of the eight South American countries associated to ISRM were very active promoting events like Regional or local Symposia, Congresses, Seminars, and so on. Following the proposal from Prof. Orestes Moretto and other prominent rock mechanics professionals at that time, the First South American Symposium was held on Colombia in the beginning of the eighties, followed by the IInd South American Symposium realized in Brazil in 1986. Venezuela held the IIIrd South American Symposium of Rock Mechanics in 1991, in the presence of Prof. John Franklin at that time President of ISRM, Prof. Dinis da Gama the Vice-President elect-

ed for South America and Prof. Tarcisio Celestino, Vice-President at Large.

Chile organized the IVth South American Symposium with the participation of prominent professionals invited from all over the world in the meeting organized by Prof. Van Sint Jan in the presence of the Vice-President for South America, Oscar Vardé—from Argentina. This was also a memorable event for the rock mechanics development in the continent.

After the IVth Symposium in Chile, Peru should have been the next host for the Vth South American Symposium, but in the end it was Brazil, due to the political and economical situation in Peru and consequent decrease in rock mechanics activities. As there were also the difficulties inherent in organizing such a big event, Peru's NG therefore passed their rights to Brasil. Subsequently, Argentina was also experiencing a problematic time in their country. So the Vth South American Symposium of Rock Mechanics — SAROCKS-98—chaired by Prof. Lineu A. Ayres da Silva from the Polytechnical School of São Paulo University, was held in conjunction with the 2nd Brazilian Symposium of Rock Mechanics, in the presence of Prof. Van Sint Jan, Vice-President for South America at that time, and with a number of prominent lecturers from overseas.

After all this history, one could really ask: should the last South American Symposium be SAROCKS-98? The answer of course is certainly not!

So as a candidate for the South American Vice-President to the Board of ISRM in the next four years, I would strongly propose to our National

Groups that the main priority task for South America will be to restore the activities of our NGs and to resume our country-to-country circulation of South American Symposia. The regional Vice-President's main role should be the coordination of the proposed activities by the NG's, and the interchange of information and ideas with the Groups.

As a member of the ISRM Board, one of my roles with ISRM colleagues can be helping the ISRM President to take decisions for increasing and modernizing our Society. There will be other tasks too, like encouraging the community to participate in the ISRM Commissions, to bring new mem-

bers to ISRM, increase publications, and so many other things to try for the Society as a whole.

Experience

Eda Freitas de Quadros obtained her B.Sc. in Civil Engineering in 1968, and her M.Sc. at the Polytechnic School of the São Paulo Univ., S. Paulo SP BRAZIL (1982). From 1982 August to 1984 January, she stayed at the Lab. Nacional de



July 2003

The reason for having a science like rock mechanics and its application, rock engineering, is mainly profit oriented, turning knowledge of rocks and steel to good use. The reason for having a society like the ISRM, and the key to the successful application of rock mechanics, however, is people.

As scientists and engineers, we all rely on studying papers and books to obtain knowledge and information. We study the data and try to follow the mathematics. We argue, using cold logic to make a point, to advance the science. The names of the authors become known to us — Barla, Fairhurst, Wittke, Sakurai, Salamon, so many more excellent ones, giants, all of them.

But behind each name is a person of flesh and blood, with hobbies, weaknesses, desires, and just ordinary habits. Each one is just a neighbour to someone else in a city or town somewhere, someone who also has to wash the car and mow the lawn, take out the garbage...

What do these people look like? What do they do when they have the time to do what they like to do?

This issue is devoted to some of the people of the ISRM. Most are famous in our circles. We have all studied their work. In this issue, we present the person behind the maths, the guy who hangs pictures on the wall, who gets summoned to dinner when he is on the point of a breakthrough that will change the world.

In future, we hope to bring a personality to each issue of the *News Journal*. As an introduction, the bulk of this volume is devoted to the people. We hope that you will get something out of it, something more than rock or moduli...

— Nielen Van der Merwe

Engenharia Civil (LNEC), Lisbon PORTUGAL, for rock hydraulics studies, having also visited the Bureau de Recherches Géologiques et Minières (BRGM), Orleans FRANCE (1983 March), and the Imperial College of Science and Technology, London UK (1983 May). In 1991 October, she stayed for 1 month at the Inst. für Bodenmechanik und Felsmechanik of the Univ. of Karlsruhe, Karlsruhe GERMANY, and, in 1992, she obtained her Ph.D. in Engineering at the Polytechnic School of the São Paulo Univ. She has continued to visit research and technological centres, including the Grimsel Underground Lab., Grimsel SWITZERLAND (1993 July), the Norges Geotekniske Inst. (NGI), Oslo NORWAY (1997 and 1999 July), the Yucca Mountain Office, Las Vegas NV USA (1997 October), the Univ. of Trondheim, Trondheim NORWAY (2000 August), and the Äspö Underground Lab. for Radioactive Waste Disposal, Äspö SWEDEN (2002 August), as well as other European Inst. developing studies related to flow.

In the period 1967-74, she worked in the field of soil mechanics and foundation engineering. In 1975, she joined the Inst. de Pesquisas Tecnológicas do Estado de São Paulo (Technological Research Inst. of the State of São Paulo) (IPT), S. Paulo SP BRAZIL, where she has been Assistant Researcher, Coordinating Researcher, Head of the Rock Mechanics Lab. (1993-5), Senior Researcher (since 1994), and Head of the Rock Engineering Dept (1995-8). Currently, she works in the Lab. of Rock Mechanics and Rock Hydraulics, of the IPT. She has taught flow and rock mechanics in advanced courses at the IPT, short courses at the São Paulo Univ.,

and other Univ. and Inst. in BRAZIL, as well as post-graduation lectures. She participated in several Ph.D. and M.Sc. thesis juries, at some Brazilian Univ. During the last 5 years, she has taught in short courses on Engineering and Flow in Rock Masses (in collaboration with Dr Nick Barton) in AUSTRALIA, CHINA (Hong Kong, and Taiwan), PORTUGAL, and SINGAPORE.

Dr Eda de Quadros is a member of the ISRM, through the Comité Brasileiro de Mecânica das Rochas of the Associação Brasileira de Mecânica dos Solos (CBMR-ABMS) (the ISRM NG BRAZIL), and, since 1984, she has been successively elected as Counsellor on the Board of the CBMR. She is also a member of the IAEG, the ISSMGE, the ITA, and the respective Brazilian geotechnical societies (ABGE, ABMS, and CBT).

Dr Quadros is the author of 52 papers in international journals, symposia, and congresses.

Her professional experience involves theoretical, field, and lab. work to determine the rock mass permeability related to engineering works; hydraulic characterization of fractured rock masses, in connection to the foundation and abutments of dams, tunnels, and mining works; analysis of flow problems in fractured rock masses, based on a continuous and discontinuous approach, taking into consideration the geometrical characterization of the joint sets, and the complexity of the joint network, related to the rock mass volume concerned in the specific engineering work.

E.T. (Ted) Brown

Born: 4 December 1938 in Castlemaine, Victoria, Australia

What made you interested in rock mechanics?

I had a family mining background and became fascinated by the underground excavations of the Snowy Mountains Hydro-electric Scheme which were being built when I was a student. But the most important influence was an inspirational undergraduate teacher and later research supervisor, Professor Hugh Trollope.

What is your speciality in rock mechanics?

I'm a jack of all trades and master of none. I currently have special interests in the design of underground excavations and the rock mechanics of block and panel caving mines.

What is your favourite topic in rock mechanics?

Rock mass strength

What hobbies do you have?

Cricket and jazz

How do you spend your free time?

Going to the cricket, listening to jazz, reading (see below), watching sport on TV, going out to dinner and/or drinking wine with my partner Dale, occasional visits to the theatre and movies, and, in particular, enjoying our 12th floor apartment overlooking the Brisbane River and the city, and our second apartment overlooking Coogee Beach in Sydney

Do you play sport?

Not any more. In the distant past, I was a poor but enthusiastic cricketer and distance runner, and a not quite so poor athletics coach.

Do you watch any sport?

Cricket, track and field athletics, Australian Rules Football, tennis, and when I'm in North America, baseball.

What is your favourite music?

Jazz – I listen to no other music.

What is your favourite food?

Grilled sea food and green salad (with a dry white wine)

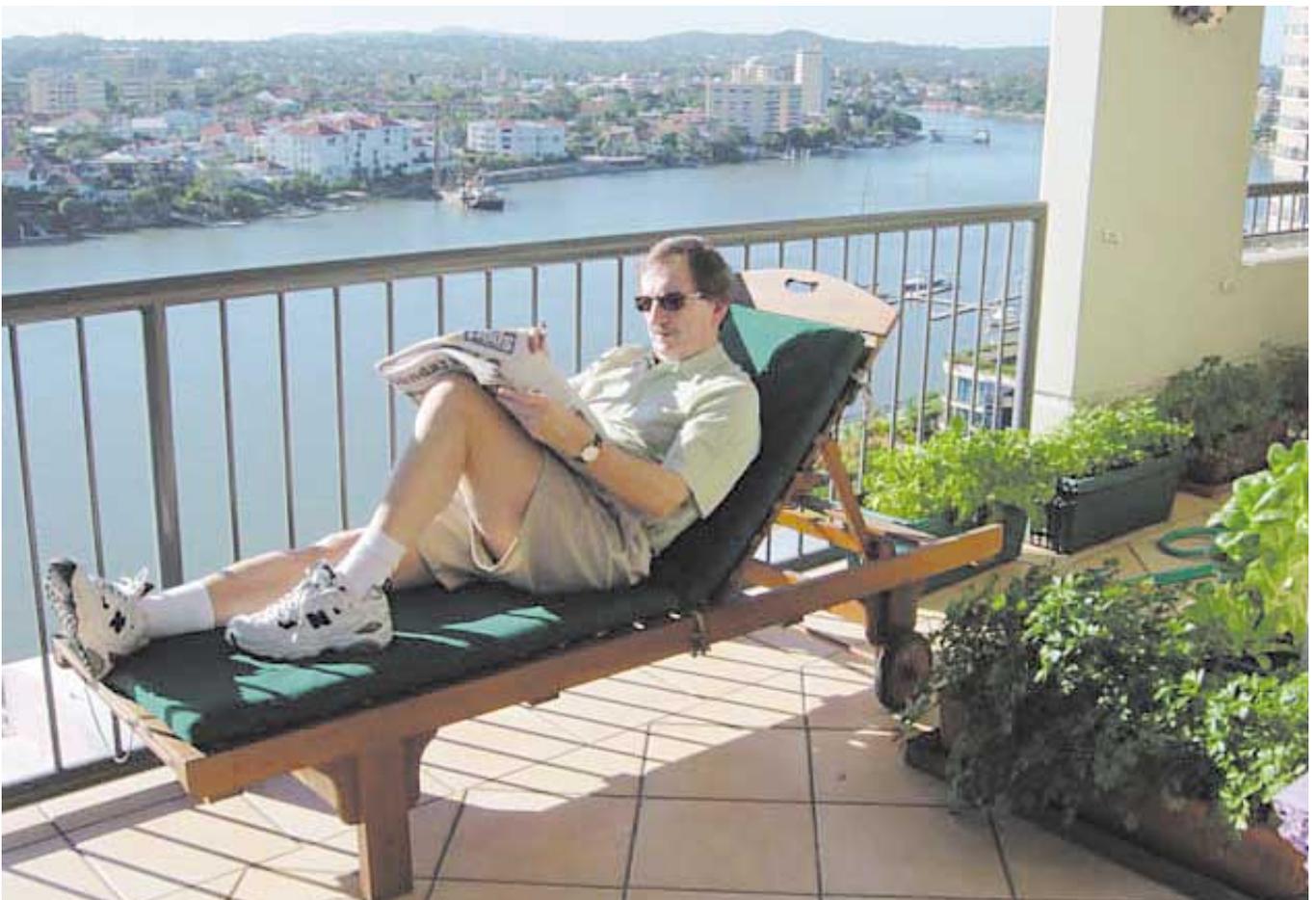
What non-technical books do you read?

History of science and engineering, biographies (including political biographies), books on jazz and jazz musicians, cricket, current affairs and Australian art, and novels (mainly thrillers these days). Recently, books on higher education have been replaced by books on company Boards and the roles of directors.

Are you married?

Sort of—my partner, Dale, and I have been together since 21 February 1975.

E.T. Brown, continued on next page



Herbert H. Einstein

Born: 31 January 1937 in Zürich, Switzerland

What made you interested in rock mechanics?

Was something new and different in the early 1960's.

What is your speciality in rock mechanics?

Fractures, Swelling Rock, Tunnels, Risk Analysis

What is your favourite topic in rock mechanics?

Many

What hobbies do you have?

Railroads, plus see below.

How do you spend your free time?

Read, walk, ride.

What is your favourite music?

Opera

What is your favourite food?

My wife's cooking.

What non-technical books do you read?

History

Are you married?

Yes

If yes, what does your spouse do?

Artist

How many children do you have?

Two (2)

What do they do?

Students



Do you have any relatives in rock mechanics?

No

E.T. Brown, *continued*

If yes, what does your spouse do?

Dale is a former English teacher and University lecturer in education. She has written 30 books and now runs her own consulting company, Digital Style, which specialises in the use of digital technologies in all levels of education and training.

How many children do you have?

None

Do you have any relatives in rock mechanics?

No—but I do have a nephew who is a professional jazz musician!

If you could have one wish come true, what would it be?

To be able to play the piano like Keith Jarrett or the tenor saxophone like Stan Getz. That would set me up well for my approaching old age.

Please add anything interesting about yourself—e.g., a defining moment in your life, a particular incident you remember, etc.—not confined to rock

mechanics!

I doubt that there's anything at all interesting about me. I don't think my life has had any defining moments, except perhaps my discovery of an exciting music called jazz when I was a 15 year old schoolboy. The career defining moment for me, if there is such a thing, came in December 1974 when I was appointed to succeed Evert Hoek as leader of the Imperial College Rock Mechanics group that he had established so brilliantly. Moving to London in July 1975, gave me all sorts of opportunities that I wouldn't have had otherwise.

Perhaps a significant difference between me and most other ISRM members who have had academic careers, is that for almost 20 years at Imperial College and the University of Queensland, I had Departmental, Faculty and then senior University management positions and did my rock mechanics work "on the side". No doubt many will say that it showed! At the end of 2000, I retired from my position as Senior Deputy Vice-

Chancellor of the University of Queensland (a position like that of the Vice-Rector of a European university or the Vice-President for Academic Affairs or Provost of an American university). I now work part-time as a consulting engineer with Golder Associates, am involved with research through the University of Queensland's Julius Kruttschnitt Mineral Research Centre, and am a member of several Boards. I'm a Director of the State owned railway company, Queensland Rail, and the Chairman of a rail freight company which is one of its subsidiaries. What other ISRM member has his own full-scale train set?

I have two "distinctions" related to the ISRM of which I'm particularly proud. I believe that I remain the youngest person to have been elected President of our Society, and I suspect that I'm one of a very few members who have attended every ISRM Congress held to date. I look forward to meeting up with any others in Johannesburg in September.

Charles Fairhurst

Born: August 5, 1929 in Widnes, England

What made you interested in rock mechanics?

The need to understand ground control in mines, and the mechanics of impact drilling of rock.

What is your speciality in rock mechanics?

Application of Rock Mechanics in Mining, Tunnelling and Waste Isolation

What is your favourite topic in rock mechanics?

Underground Mining; Challenge of Nuclear Waste Isolation

What hobbies do you have?

Reading; Study of World Politics; Walking

How do you spend your free time?

Watch detective and mystery shows on television; visiting children and grandchildren

Do you play sport?

Not now

Do you watch any sport?

Rugby; Professional American Football. Tour de France.

What is your favourite music?

Mozart; Vivaldi; Dixieland Jazz

What is your favourite food?

Lamb; glass of wine; good cheese

What non-technical books do you read?

World War 2; Biographies of Political Leaders; Mystery novels

Are you married?

Yes

If yes, what does your spouse do?

Former teacher; now runs home and keeps in contact with family

How many children do you have?

Seven (3 daughters; 4 sons)



What do they do?

Computer marketing; Well services company manager; Materials testing engineer/manager; Neurosciences research; Aircraft parts supply; Owner/Manager, Equipment Rental; Geologist/Crayfish farming

Do you have any relatives in rock mechanics?

Son, David is with Schlumberger Well Services Division. Son, Charles is associated with MTS, major supplier of rock testing equipment.

Please add anything interesting about yourself—e.g., a defining moment in your life, a particular incident you remember, etc.—not confined to rock mechanics!

My life has been very rewarding, both professionally and personally.

Being asked by Professor Pfleider, in 1957, to establish a rock mechanics programme at the University of Minnesota was certainly a major turning point professionally.

Having the entire family of children, spouses and grandchildren assemble for our 40th wedding anniversary was a very special family event.

Richard E. Goodman

Born: 25 December, 1935 in New York City, New York, USA.

What made you interested in rock mechanics?

My interest developed from initial employment as a geologist. I became fascinated with the problem of how to formulate rock slope or foundation problems making use of local geological structure. This intensified with the failure of Malpasset Dam in 1959, during the time of my doctoral studies.

What is your speciality in rock mechanics?

The calculation and computation of rock behaviour, incorporating real modes of failure that reflect the interplay of discontinuities and rock strength

What is your favourite topic in rock mechanics?

Geological engineering, making use of rock mass mechanics for rock slopes and dam abutments

What hobbies do you have?

Classical music as pianist and singer. (I have performed 80 principal baritone roles in major and minor opera productions.)

How do you spend your free time?

Tennis, singing, playing piano, and writing

Do you play sport?

Tennis

Do you watch any sport?

No

What is your favourite music?

Opera and classical art songs

What is your favourite food?

Italian

What non-technical books do you read?

Biographies, historical novels, and historical non-fiction, as well as literature in the German language.

Are you married?

Yes

If yes, what does your spouse do?

She is a cellist.

How many children do you have?

Three

What do they do?

Paula is an opera singer, now living in Europe; Holly is an elementary school teacher, living in Oregon. Lilly is a wildlife and plant ecologist, employed by the State of Alaska.

Do you have any relatives in rock mechanics?

No. (But all the students I have had the pleasure to supervise in doctoral work seem like close relatives.)



If you could have one wish come true, what would it be?

To see our culture evolve to one that is less adversarial, committed to preserving the beauty and wildness of nature, and joined in universal pursuit of planetary welfare.

Satoshi Hibino

Born: August 13, 1938 in Japan

What made you interested in rock mechanics?

Prof. Hiramatsu made me feel thinking was very interesting through his lecture on rock mechanics during my student days at Kyoto University.

What is your speciality in rock mechanics?

Stability of large-scale cavern

What is your favourite topic in rock mechanics?

Stress state and mechanical properties of rock mass at near failure and anisotropic behaviour of jointed rock mass around a large-scale cavern.

What hobbies do you have?

Making potteries on a potter's wheel.

How do you spend your free time?

Enjoying gardening with my wife, making buckwheat noodles, taking photographs and traveling with my family.

Do you play sport?

Skiing, Swimming.

Do you watch any sport?

Sumou (Japanese wrestling)

What is your favourite music?

Classical music (Bach)

What is your favourite food?

Cheese, Sashimi (raw fish)

What non-technical books do you read?

Essay, Akutagawa awarded books (the award is given to a new hope) and miscellaneous

Are you married?

Yes

If yes, what does your spouse do?

Housewife



How many children do you have?

Three children

What do they do?

My older son is a researcher of a railway technical research institute and the other son is working at a food company as a researcher as well. My daughter is working at a TV production company in New York.

Do you have any relatives in rock mechanics?

None.

If you could have one wish come true, what would it be?

Life free from anxiety.

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc. — not confined to rock mechanics!

During my student life I travelled to Shikoku-island with my friends, where we found a veg-

etable that looked very delicious. After eating it a little bit, I suffered severe aches in my throat, gullet and stomach. It had poison and I could not eat, or drink anything either for two to three days and the pains continued for a week. The name of the vegetable was found later to be "Kuwazu-imo," that meant "Unable to eat."

John A. Hudson

Born: 9 May 1940 in Wales, UK

What made you interested in rock mechanics?

It combines my two favourite subjects of geology and mathematics

What is your speciality in rock mechanics?

Developing, communicating and implementing the basic principles and techniques of the subject within the context of an overall rock engineering systems understanding

What is your favourite topic in rock mechanics?

Site investigation

What hobbies do you have?

Appreciating the British countryside and walking long distance country trails

How do you spend your free time? (If you have any!)

Lamenting that I either have time or money, but never both

Do you play sport?

Squash and jogging (slowly)

Do you watch any sport?

Tennis, snooker

What is your favourite music?

Hummel's trumpet concerto

What is your favourite food?

1. My wife's cooking
2. Chinese cooking, as cooked in China

What non-technical books do you read?

Like to listen to audiobooks either written by Robert Goddard or read by Harriet Walter

Are you married?

Yes

If yes, what does your spouse do?

Formerly a dentist and oral pathologist, now Partner with me in Rock Engineering Consultants, and expert multi-tasker



How many children do you have?

Three (3)

What do they do?

1. Physics teacher
2. Free-lance creative computer communications systems generator
3. Environmental engineer, student and mother

Do you have any relatives in rock mechanics?

No

If you could have one wish come true, what would it be?

That I could understand more of the deeper realms of mathematics.

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc — not confined to rock mechanics!

The defining moment in my life was in 1965 at the Heriot-Watt University in Edinburgh, Scotland, as I was finishing a BSc degree, when I saw an advertisement for a research associate position at the University of Minnesota in the USA studying for a rock mechanics Ph.D. under Charles Fairhurst. If that advertisement had not been sent to

the Heriot-Watt University, or if I had not seen it, I would probably have spent the last 38 years doing something completely different!

Peter Kaiser

Born: March 31, 1947 in Schaffhausen, Switzerland

What made you interested in rock mechanics?

Need for Alpine transportation tunnelling

What is your speciality in rock mechanics?

Rock support and ground control in deep mining, rockbursting, tunnelling at depth, construction aspects of underground works

What is your favourite topic in rock mechanics?

brittle rock mass failure for stability assessment of pillars, tunnels and caverns
What hobbies do you have? wood work

How do you spend your free time? (If you have any!)

Hiking, swimming and canoeing in summer and skiing in winter; wood work and home renovation; photography

Do you play sport?

See above

Do you watch any sport?

Not much — hockey or curling

What is your favourite music?

Classics and blues

What is your favourite food?

Authentic Chinese food

What non-technical books do you read?

Recent history novels

Are you married?

Yes

If yes, what does your spouse do?

Artist, painter and sculptress

How many children do you have?

Two

What do they do?

Daughter is financial analyst in biomedical field and son is small business manager

Do you have any relatives in rock mechanics? (Specify)

NO — not even the Kaiser effect!

If you could have one wish come true, what would it be?

That there were 100 hours in a day and 10 days in a week—and no forms to be filled in!

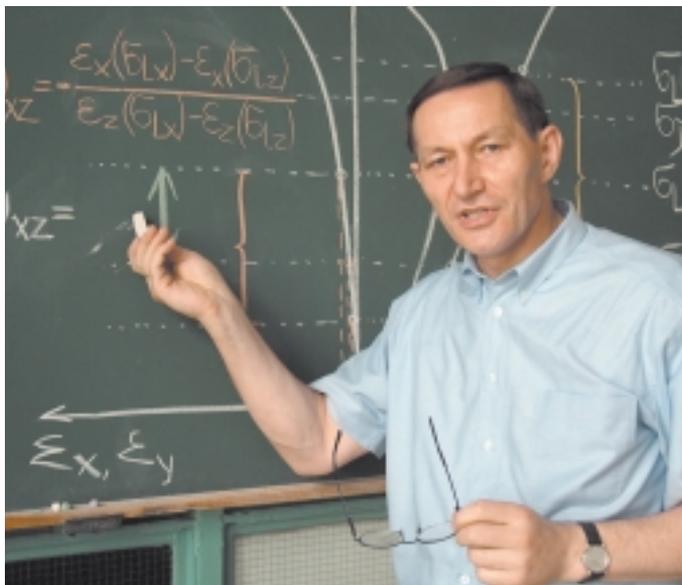
Please add anything interesting



about yourself — e.g., a defining moment in your life, a particular incident you remember, etc — not confined to rock mechanics!

The day my father died at 12, when I got married to a loving wife, and when I received a Canada Council scholarship to study in Canada, our future home, were the three most defining moments of our lives.

Marek Kwasniewski



Born: January 20, 1947 in Penley, Wales UK

What made you interested in rock mechanics?

The greatest influence on my scientific interests were the professors who taught me during my undergraduate, master and doctoral studies at the Faculty of Mining Engineering of the Stanislaw Staszic University of Mining and Metallurgy in Cracow between 1964-1973. I had the privilege to study mining geomechanics, strata control and ground subsidence under the guidance of the most brilliant, dedicated and inspiring teachers.

Later, at the Silesian University of Technology in Gliwice, I found excellent conditions in which to set up my rock mechanics laboratory.

What is your speciality in rock mechanics?

My speciality in rock mechanics is experimental rock deformation.

What is your favourite topic in rock mechanics?

My favourite topic is microfracturing and the phenomenon of dilatancy in rocks.

What hobbies do you have?

My hobbies are: playing tennis and soccer, downhill skiing and reading.

How do you spend your free time? (If you have any!)

I devote my free time to cultivat-

ing my hobbies. In summer, I spend lots of time in my garden growing flowers, mowing the lawn, trimming shrubs and having cookouts with my family and friends.

Do you play a sport?

I am an avid tennis player and also a

member of a soccer team that represents the Faculty of Mining and Geology in the Silesian University of Technology's professor soccer league. Downhill skiing is my favourite winter sport.

Do you watch any sport?

Yes, I like watching figure skating and ski jump competitions.

What is your favourite music?

I enjoy jazz (Dixieland, swing, bebop) and classical music (Bach, Chopin, Tchaikovsky, Brahms).

What is your favourite food?

I like dumplings of all sorts (e.g., Polish ruskie pierogi and Chinese jiaozi) and all kinds of pastry, cakes and sweets.

What non-technical books do you read?

My favourite type of reading is epic novels like John Steinbeck's *East of Eden*, Mikhail Sholokhov's *Quiet Flows the Don* and Leo Tolstoy's *War and Peace*.

Are you married?

Yes, I am.

If yes, what does your spouse do?

She, her mother and brother run together a family bakery and pastry shops.

How many children do you have?

I have two daughters, Anna and Maya.

What do they do?

Anna is about to complete her

university studies in the field of physiotherapy. She works in a hospital as a volunteer rehabilitation assistant.

Maya studies architecture at Cracow University of Technology.

Do you have any relatives in rock mechanics?

No, I don't.

If you could have one wish come true, what would it be?

I would like to be able to play violin masterfully.

Please add anything interesting about yourself—e.g., a defining moment in your life, a particular incident you remember, etc.—not confined to rock mechanics!

Although my parents originated from different parts of the country, I spent all my childhood and early youth in Upper Silesia, a land of hard-working, brave and ingenious people. Upper Silesia stretches over a huge coal deposit, the Upper Silesian Coal Basin. For centuries, mining in Upper Silesia was not only a profession but also a tradition and a style of life. Miners in Upper Silesia were always regarded as the noblest of the nobles and no profession could match theirs. Innumerable families in big cities, small towns and villages lived from mining and for mining. This included my father, a surgeon, who for decades used to go every afternoon from his hospital to a nearby colliery where he worked as the mine's medical doctor. The region's special atmosphere and admiration for people struggling heroically against underground hazards inspired me to stay in Upper Silesia forever. That is how I became an adept of the mining profession at the Andaluzja Colliery in 1964, immediately after graduation from secondary school and, then, began my university studies in the field of mining engineering.

Paul G. Marinos

Born: January 1, 1944 in Athens, Greece

What made you interested in rock mechanics?

Initial background as mining engineer

What is your speciality in rock mechanics?

Geological engineering; weak rock masses

What is your favourite topic in rock mechanics?

Tunnelling

What hobbies do you have?

No more (unfortunately)

How do you spend your free time? (if you have any!)

Travelling, but on the occasion of business trips

Do you play sport?

No more

What is your favourite music?

The good music

What non-technical books do you read?

Yes, I read but no precise preference.

Are you married?

Yes

If yes, what does your spouse do?

Looking after us

How many children do you have?

Two

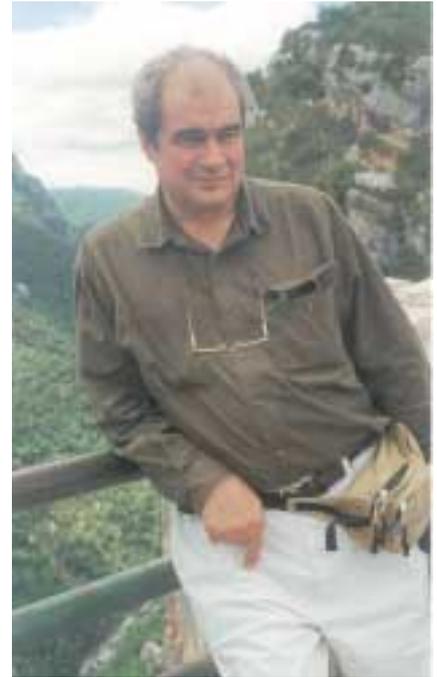
What do they do?

George: archeologist

Vassilis: engineering geologist

Do you have any relatives in rock mechanics?

No



If you could have one wish come true, what would it be?

Achieve a zero residual risk in engineering construction

Yoshiaki Mizuta



Born: October 16, 1939 in Osaka, Japan

What made you interested in rock mechanics?

Late Dr. Oka who was my Teacher

What is your speciality in rock mechanics?

Rock Stress Measurement, Development of Numerical Method by BEM

What is your favourite topic in rock mechanics?

Development of new method for Stress Measurement

What hobbies do you have?

Playing Golf

How do you spend your free time?

Play Golf, Make firewood

Do you play sport?

Golf

Do you watch any sport?

Baseball

What is your favourite music?

Popular song

What is your favourite food?

Marine Products

What non-technical books do you read?

Detective story

Are you married?

Yes

If yes, what does your spouse do?

Partner for managing our Private Company

How many children do you have?

Two

What do they do?

Daughter: housewife

Son: Labourer of a Factory

Do you have any relatives in rock mechanics?

No

If you could have one wish come true, what would it be?

My son establish himself

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc. — not confined to rock mechanics!

I could build up my position because of Prof. Yoshio Hiramatsu and Prof. Charles Fairhurst.

Marc Panet

Born: 8 September 1938 in Lyon, France

What made you interested in rock mechanics?

The common interest in Mechanics and Earth Sciences

What is your speciality in rock mechanics?

Applied Rock Mechanics to Civil Engineering

What is your favourite topic in rock mechanics?

Underground Works and Slope Stability

What hobbies do you have?

Sports — Literature — Movies and Theatre

How do you spend your free time? (If you have any!)

Practicing as much as possible my hobbies

Do you play sport?

I don't really practice sport any more; I try to walk, run, swim, ski as much as the age allows.

Do you watch any sport?

Soccer, tennis, but nothing is more exciting for me than a good rugby game, especially when the French team beats an Anglo-saxon team — it happened and may happen in the next World Cup.

What is your favourite music?

Bach and Charlie Parker

What is your favourite food?

Oysters, caviar and a rare piece of rumsteack

What non-technical books do you read?

French literature

Are you married?

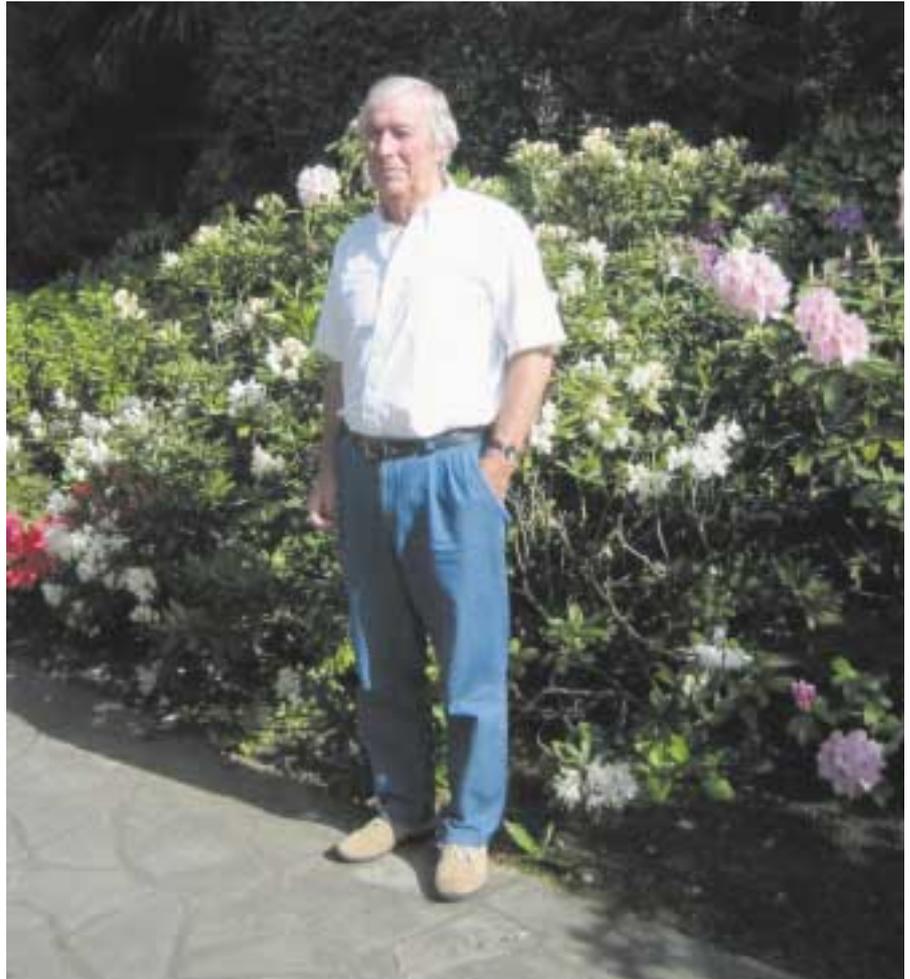
Yes

If yes, what does your spouse do?

Doing her best for the happiness of our family

How many children do you have?

2 boys



What do they do?

Telecommunication engineer
Business management

Do you have any relatives in rock mechanics?

No

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc. — not confined to rock mechanics!

I kept memories of so many unforgettable moments in my family life or in my professional carrers; it is too difficult to select; but the birth of my first grandson, Matisse, was very moving.

Manuel Romana

Born: 9 December 1934 in Sevilla, Spain

What made you interested in rock mechanics?

I became aware of rock mechanics when working as a construction engineer for the foundation of an arch dam (Atazar)

What is your speciality in rock mechanics?

Tunnelling/slopes

What is your favourite topic in rock mechanics?

SMR geomechanical classification for slopes

What hobbies do you have?

Many and no one too demanding. I like to go to painting ex.

How do you spend your free time?

With my family (spouse, children, grandchildren); Travelling as a tourist (with family); Reading and hearing music at home

Do you play sport?

Golf, Swimming

Do you watch any sport?

Not often

What is your favourite music?

Classical, Soft pop

What is your favourite food?

Salads, Fish

What non-technical books do you read?

Novels, essays, historic

Are you married?

Yes

What does your spouse do?

Administration manager of a company

How many children do you have?

3 (1 boy, 2 girls)

What do they do?

- Professor of Transportation at Polytechnical University of Madrid
- Professor of Translation at Comillas University (Madrid)
- General Director of Economics Policy of Spanish Government

Do you have any relatives in rock mechanics?

No

If you could have one wish come true, what would it be?

Better understanding between men

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc. — not confined to rock mechanics!

I remember three defining moments for my technical/academic work:

- 1950 — I took the decision to become civil engineer (no precedents in my family)
- 1975 — I took the decision to enter an academic career. After working more than 15 years in the construction industry (first construction, after, design)
- 1986 — in one day I had to finish a report for the support of a slope below a very old castle (Denia, Spain). I got depressed after hearing about the death in a plane crash of one of my best friends. When working in a very depressed mood, I got the spark idea for the geomechanical classification.

Koichi Sassa

Born: April 30, 1933 in Kyoto, Japan

What made you interested in rock mechanics?

Studies on the mechanism of rock breakage by blasting.

What is your speciality in rock mechanics?

Characterisation of in-situ rock. Blasting.

What is your favourite topic in rock mechanics?

Application of Geophysics in Rock Engineering. Mechanism of rock breakage and ground motion caused by blasting.

What hobbies do you have?

How do you spend your free time? (If you have any!)

Enjoy scenic beauties.

Do you watch any sport?

Baseball

What is your favourite music?

Country-and-western

What is your favourite food?

Fresh seafood

What non-technical books do you read?

Are you married?

Yes

What does your spouse do?

Pediatrician

How many children do you have?

Two

What do they do?

The one is working in a provin-



cial government. The other one is working in a fuel gas supply company.

Do you have any relatives in rock mechanics?

My younger brother, Kyoji Sassa, is a professor at Kyoto University, and he is interested in landslide.

Shunsuke Sakurai

Born: 14 December 1935 in Kofu, Yamanashi-ken, Japan

What made you interested in rock mechanics?

I met Rock Mechanics in the research on “Radioactive waste disposal in salt.” This research made me interested in rock mechanics.

What is your speciality in rock mechanics?

Field measurements, Back analysis

What is your favourite topic in rock mechanics?

Tunnels and slopes

What hobbies do you have?

Art and music in underground space

How do you spend your free time?

Reading books, listening music, appreciation of paintings, traveling, etc.

Do you play sport?

No more, but I try to walk.

Do you watch any sport?

Baseball

What is your favourite music?

Classical music

What non-technical books do you read?

Ones related to art, psychology, history, etc.

Are you married?

Yes

What does your spouse do?

Clinical psychologist

How many children do you have?

Two (one daughter and one son)

What do they do?

Junko: Interior Designer
Yoshiki: Civil Engineer



Do you have any relatives in rock mechanics?

Yes, my son

If you could have one wish come true, what would it be?

Artist of modern art using CG

Please add anything interesting about yourself— e.g., a defining moment in your life, a particular incident you remember, etc.—not confined to rock

mechanics!

I have been making an effort on creating new arts in underground space together with artists, psychologists, architects, civil engineers, acoustic engineers, so on. I have a lot of good memories with them in relation to the various activities in underground space.

Dick Stacey

Born: 17 October 1943 in Durban, South Africa

What made you interested in rock mechanics?

I was in the Strength of Materials Division of the National Mechanical Engineering Research Institute of the CSIR and the Director, Gunter Denkhaus (at one time a Vice-President for Africa of the ISRM) said to me, "You would like to move into rock mechanics, wouldn't you?" So, I did not choose my career, but I have never regretted the move. Even my subsequent career has "happened," rather than career choices having been actively made.

What is your speciality in rock mechanics?

Various: fracture, slope stability, shallow undermining

What is your favourite topic in rock mechanics?

Hobbyhorse is extension (strain)

What hobbies do you have?

None really, but I have "interests" that could turn into hobbies when I have time

How do you spend your free time?

With family, pottering about in the house/garden (usually by necessity to fix something, not by choice)

Do you play sport?

Tennis

Do you watch any sport?

Cricket first, then come tennis, rugby, etc

What is your favourite music?

Classical

What is your favourite food?

Probably Italian

What non-technical books do you read?

Generally various non-fiction, but Tom Clancy fiction

Are you married?

Yes

What does your spouse do?

Housewife/Grandmother

How many children do you have?

Two

What do they do?

1. Secretary/Organiser for French company
2. Computer Scientist (financial). Was previously hydrologist with consulting engineer

Do you have any relatives in rock mechanics?

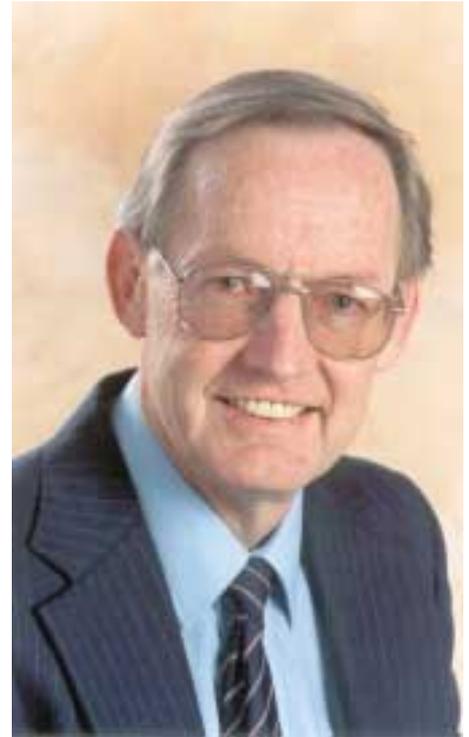
No. Two great grandfathers were mine managers in Australia

If you could have one wish come true, what would it be?

Peace and harmony in the world

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc. — not confined to rock mechanics!

Probably the most significant thing (apart from getting married) was selling our house at a profit and spending the proceeds on travelling, with family, for 3



months around Europe, before spending a year at Imperial College, Royal School of Mines, as an Academic Visitor with John Knill in the Engineering Geology Department. We returned to South Africa stony broke, but have never regretted doing it and still, 30 years later, have great memories of that time.

Dick Bieniawski was my boss for 6 years, and a very good one. He was a very good motivator and gave me a push to do a doctorate. John Knill gave me the honour of being an Academic Visitor for a very memorable year at Imperial College. I was very fortunate to be able to work with many superb colleagues at Steffen, Robertson and Kirsten (SRK) for 25 stimulating years.

Nielen van der Merwe

Born: 30 November 1947 in Dannhauser, South Africa

What made you interested in rock mechanics?

Mining injuries to friends, misplaced youthful belief that I could fix the problems very quickly!

What is your speciality in rock mechanics?

Coal mining

What is your favourite topic in rock mechanics?

When will it happen?

What hobbies do you have?

Photography

How do you spend your free time?

None now, I previously coached rugby. I still cultivate chilies. Listen to opera in my car and while working. Once listened to Verdi's *Otello* so intensely that I got totally lost on my way to a mine.

Do you play sport?

Not any more, played rugby earlier

Do you watch any sport?

Rugby

What is your favourite music?

Italian opera

What is your favourite food?

Barbeque

What non-technical books do you read?

John Steinbeck, Ernest Hemingway are my favourite authors

Are you married?

Yes

What does your spouse do?

Pays my speeding fines and keeps the family together

How many children do you have?

Three



What do they do?

Melani teaches Art and English; Hein is an Advocate; Nielen is a Nature Conservation student

Do you have any relatives in rock mechanics?

No. My grandfather was a coal miner, all the others were in artistic or farming occupations

If you could have one wish come true, what would it be?

That we could all accept and respect diversity in people and ideas

Please add anything interesting about yourself — e.g., a defining moment in your life, a particular incident you remember, etc, — not confined to rock mechanics!

On the day that I handed in the very final copy of my Ph.D. thesis, I spent the evening clearing my study, putting all the loose papers and references into boxes. I was sad that it had come to an end. I counted all the pages I had read and worked through and thought back on all the late nights and working weekends.

When I went to bed, I bragged to my wife that the total volume of material I had worked through was equal to four volumes of the Bible. She said I maybe I would have been better off reading the Bible four times and went back to sleep.

Walter K. Wittke

Born: March 28, 1934 in
Hamburg, Germany

**What made you interested in
rock mechanics?**

New branch of engineering science and Development of models, methods of analysis, design

**What is your speciality in rock
mechanics?**

Modelling, numerical analyses and design

**What is your favourite topic in
rock mechanics?**

New developments, design and construction

What hobbies do you have?

Music (piano, accordion), Golf

**How do you spend your free
time?**

1. With my family
2. Golf
3. Music

Do you play sport?

Golf

Do you watch any sport?

very little

What is your favourite music?

Jazz and classics

What is your favourite food?

Fish

**What non-technical books do
you read?**

Historic novels (very few)

Are you married?

Yes

What does your spouse do?

Financial matters in WBI-company

**How many children do you
have?**

Four

What do they do?

Dr.-Ing. Bettina Wittke-Schmitt, Rock Mechanics; Dr.-Ing. Patricia Wittke-Gattermann, tunneling
Dr.-Ing. Martin Wittke, WBI-company; Dr.-rer. pol. Cornelia Wittke-Kothe, Coworker of Mc Kinsey & Company



**Do you have any relatives in
rock mechanics?**

my children, see above
Dr.-Ing. C. Erichsen
Dipl.-Ing. D. Schmitt
Dr.-Ing. J. Gattermann

**If you could have one wish
come true, what would it be?**

Long professionally active life together with my wife and family

Coming Events, *continued from outside back cover*

aspects of underground development. L: English. 5. Prof Jian ZHAO, School of Civil and Environmental Engineering, Nanyang Technological University, Block N1 Nanyang Avenue, Singapore 639798. FAX: 65/7921650; EM: cjzhao@ntu.edu.sg.

**2004 June 13-16, Kansas City MO USA — June
Committee Week of the American Society for Testing
and Materials International (ASTM), Section D18 —
Soil and Rock.**

Dr Jack Touseull, Rock Mechanics Subcommittee D18.12, Chairperson, USA. EM: jtouseull@do.usbr.gov. D18 Office Manager, Mr Robert J. Morgan, 100 Barr Harbor Drive, W. Conshohocken, PA 19428-2959, USA. TLP: 1/610/8329732; EM: rmorgan@astm.org

2004 June 21-24, GeoEng 2004, Theme: "GEO-Engineering for Resource Development" Location: TELUS Convention Centre Calgary, Alberta, Canada, an international conference, organized on behalf of the ISRM, the IAEG, and the ISSMGE. Overview Lectures: 1. Engineering Geophysics (Resource Exploration to Evaluation); 2. Geomathematics and Data Management; 3. Hydrogeology; 4. Horizontal Drilling for Characterization, and in Geoenvironmental Applications. Technical Sessions: Oil/Gas (1. Natural hazards. offshore hydrates; 2. Offshore structures. foundations; 3. Site remediation, state of the practice, or case histories; 4. Pipelines. route selection, soil-pipe interaction, use of horizontal drilling for installation, etc.); 5. Oil sands development; 6. Geomechanics in reservoir modelling; 7. Borehole stability; 8. Geological sequestration of the CO₂; 9. Arctic development); Mining (1. Geomechanics of underground mining; 2. Geomechanics of surface mining; 3. Waste dumps, tailings management, including covers; 4. Restoration of a landscape disturbed by mining, and f soft tailings; 5. Acid mine drainage); Water (1. Dam safety programs; 2. Deterioration of dams; 3. Water conservation, and leakage from canals); Nuclear Waste (1. Geological and geophysical characterization of repositories; 2. Update on technical issues, or on disposal schemes); New Energy Sources (1. Geotechnical issues related to development); Forestry (1. Geotechnical issues related to extraction and reforestation). Prof. D.C. Sege, Chairman of the Organizing Committee, Room 303, Civil-Electrical Building, Dept of Civil & Environmental

Engineering, Univ. of Alberta, Edmonton, AB T6G 2G7, CANADA. TLP: 1/780/4922176; spetaske@civil.ualberta.ca

**2004 September 27-30, Las Vegas NV USA — MINExpo
International 2004**, an exhibition of mining related equipment and services. National Mining Association, 1130, 17th Street NW, Washington, DC 20036, USA. TLP: 1/202/4632625 or 4636152(fax).

**2004 November 30-December 2, Kyoto, JAPAN —
International Symposium on Contribution of Rock
Mechanics to the New Century (3rd ARMS 2004)**

**2004, Helsinki FINLAND — 7th International
Symposium on Environmental Geotechnology and
Sustainable Development.**

**2005 May 18-20, Brno, CZECH REPUBLIC —
International Symposium on Impacts of the Human
Activity on the Geological Environment (Regional)**

**2006, September 19-21, London, United KINGDOM —
10th International Congress of the International
Association of Engineering Geology and the
Environment.** The title will be "Engineering geology of tomorrow's cities." EM: mike.rosenbaum@ntu.ac.uk

**July 2007, Lisbon, PORTUGAL — 11th ISRM
International Congress**

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[Microsoft Word is a good format for text files but does not work well for figures and illustrations in the printing process.]

For more information about file formats please contact J. Bartholomew,
jkbarth@usinternet.com, 612.926.8196

or 612.926.6416 fax.

Coming Events

CLASHES — Conference organizers! A clash of dates can hurt your meeting. Please, carefully check the pre-booked dates in the **ISRM NEWS JOURNAL** or in this **Events Calendar**, and notify the **ISRM NEWS JOURNAL** Editor or the **ISRM Secretariat**, as soon as you know your conference dates, theme, and venue.

ISRM SPONSORSHIP — Conference organizers! Apply early to the **ISRM Secretariat** for **ISRM** sponsorship, to help publicize your meeting. **National, Regional, and International symposia**, and the **4-yearly ISRM Congress**, impose different requirements for **ISRM** recognition, languages, etc. Details are given in **ISRM By-Laws 4 and 5**, reprinted in the **annual ISRM Directory** and available in this **Home Page**.

2003 September 1-4, Prague, Czech Republic — 6th International Symposium & Exhibition on Environmental Contamination in Central & Eastern Europe and the Commonwealth of Independent States
For more information: <http://www.prague2003.fsu.edu>

2003 September 8-12, Sandton (Gauteng)—Johannesburg) S AFRICA — ISRM 10th International Congress on Rock Mechanics, organized by the S African National Inst. of Rock Engineering (SANIRE) (the ISRM NG S AFRICA), and The S African Inst. of Mining and Metallurgy. Theme: Technology Roadmap for Rock Mechanics. Topics: Behavior of rock masses under very high stress to strength ratios; Design and stability of very deep open pits, and very high rock slopes; Deformation behavior of rocks and rock masses; Modeling of the fracture and failure of rocks and rock masses; Dynamic effects; Remote excavation, mechanical excavation, including the tunnel and raise boring; In situ tests, large scale tests, field tests, back analysis; Shallow and deep, large span excavations, civil excavations, caverns, etc.; Rock mass classification revisited—success stories, weaknesses, applications, developments; Probability and risk; Petroleum rock engineering; Environmental rock engineering; Dams, foundations, rock as a construction material; Fragmentation by blasting; Tunnels; Fundamental developments in rock engineering; Rock engineering education. L: English; French, German (only for the abstracts). TS: Abstracts (submitted to the respective NG)—20020531; Acceptance—20020731; Papers (submitted to the respective NG)—20030331; Papers (final submission)—20030701. Several workshops/mini symposia are planned. 1-day technical visits, during the conference, will be organized. Panel discussions and pre-congress workshops shall be arranged. Post-Congress tours to the Lesotho highlands, the Pilanesberg game reserve/Witwatersrand deep mines (4-days), and the Kruger national park/Palabora mine are foreseen. Fee: USD 600 max. The 2003 ISRM Board, Council, and Commission Meetings will be held on September 6-7, in conjunction with this Congress. Mrs Karen Norman, The Conference Co-Ordinator, Technology Roadmap for Rock Mechanics, P.O. Box 61127, ZA-2107 Marshalltown, S AFRICA. TLP: 27/11/8341273, 8341277, 8338156(fax), or 8385923(fax). web site: www.isrm2003.co.za

2003 September 9-12, Sydney NSW AUSTRALIA — AIMEX 2003, the Australian International Mining Exhibition. Mr George Martin, 475 Victoria Ave, Chatswood, NSW 2067, AUSTRALIA. TLP: 61/2/94222511 or 94222553(fax); EM: george.martin@reedexpo.com.au

2003 September 10-12, Prague CZECH R — EFEE 2nd World Conference. European Federation of Explosives Engineers (EFEE) Secretariat, Hodroyd House, 637 Barnsley Rd, Wakefield, WF2 6QE West Yorks, UK. TLP: 44/1924/253511 or 253535(fax); EM: alison@spand.biz

2003 September 15-18, Oslo, Norway — 6th International Symposium on Field Measurements in GeoMechanics, FMGM 2003. Symposium Themes: Case studies about the role of field measurements in problem solving, research, safety assessment or improving the design of civil engineering structures and works. State-of-the-art and trends in measurement technology, equipment, communication methods and data management and interpretation. Planning, administration and quality assurance of instrumentation systems and monitoring programs. Pre-Symposium Workshops on: Instrumentation and testing for nuclear waste repositories. Instrumentation of piled raft foundations. Subsea monitoring systems.

Important dates: Submission of abstracts: September 30, 2002 Notification of acceptance: November 30, 2002. Submission of final manuscripts: April 30, 2003. Contact: FMGM 2003 Secretariat, c/o Norwegian Geotechnical Institute, P.O. Box 3930 Ullevaal Stadion, N-0806 OSLO, Norway Tel: +47 22 02 30 00, Fax: +47 22 23 04 48; email: fmgm@ngi.no Additional information and pre-registration: www.fmgm.no

2003 September 22-24, Lyons, FRANCE — Behaviour of Soils and Soft Rocks.

2003 October 6-8, Trondheim NORWAY — The 6th International Conference on Analysis of Discontinuous Deformation (ICADD-6) (Regional)

2003 October 13-15, Stockholm, SWEDEN — International Conference on Coupled T-H-M-C Processes in Geosystems: Fundamentals, Modelling, Experiments and Applications (GeoProc 2003) (Regional)

2003 November 6-8, Lisboa, PORTUGAL — 2nd International Symposium on Building Pathology, Durability and Rehabilitation. Learning from Errors and Defects in Buildings. The Symposium intends to take the maximum advantage of errors unfortunately committed during design, construction, maintenance, operation and rehabilitation of current buildings and from the ensuing defects, in order to learn and to avoid repeating the same mistakes in the future. Failures in building will be approached in a straightforward and positive manner. Abstracts must be submitted preferably by e-mail to: cib.lisboa03@lnec.pt, until January 31, 2003, in English, referring in which symposium theme the paper might be included. Venue: LNEC Congress Center, Av. do Brasil - Lisboa - PORTUGAL. The official languages of the Symposium will be Portuguese and English. Simultaneous translation will be provided. Web site: http://www-ext.lnec.pt/cib_symposium_lisboa03/eng/main.htm

2003, Belgrade, YUGOSLAVIA — 31st IAH Congress.

2003, Marrakesh, MOROCCO—13th ISSMGE African Regional Conference on Soil Mechanics and Geotechnical Engineering

2003, SINGAPORE—12th ISSMGE Asian Conference on Soil Mechanics and Geotechnical Engineering.

2004 January 11-16, Tampa FL USA — January Committee Week of the American Society for Testing and Materials International (ASTM), Section D18 - Soil and Rock. Dr Jack Touseull, Rock Mechanics Subcommittee D18.12, Chairperson, USA. EM: jtouseull@do.usbr.gov D18 Office Manager, Mr Robert J. Morgan, 100 Barr Harbor Drive, W. Conshohocken, PA 19428-2959, USA. TLP: 1/610/8329732; EM: rmorgan@astm.org

2004 February 23-25, Denver CO USA — Annual Meeting of the Society for Mining, Metallurgy, and Exploration. SME, 8307 Shaffer Parkway, P.O. Box 625002, Littleton, CO 80162-5002, USA. TLP: 1/303/9739550 or 9793461(fax); EM: meetings@smenet.org or smenet@aol.com.

2004 May 18-21, Three Gorges Project Site, CHINA — International Symposium on Rock Mechanics on Rock Characterization, Modelling and Engineering Design Methods (Sinorock-2004) (Regional) (to be approved by the Board at the Sandton Board Meeting)

2004 May 22-27, Singapore — World Tunnel Congress and International Tunnelling Association General Assembly, organized by the Tunnelling and Underground Construction Society (Singapore) (TUCSS), Institution of Engineers Singapore (IES) and the International Tunnelling Association (ITA). Scheme: Underground space development in urban environment. Topics: planning and development of underground space and infrastructures, geological and geotechnical investigations for underground projects, tunnelling in soils, rocks and mixed ground, tunnel machine and mechanized excavations, design of tunnel lining and various underground supports, deep excavation and earth-sheltered structures, ground improvement and settlement control, tunnel repair and maintenance, safety issues in tunnelling and underground construction, social, political and environmental