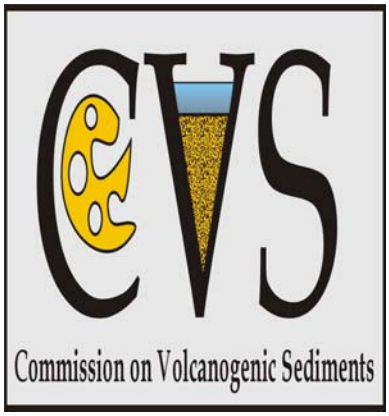


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# MARCH 2004

Published under the aegis of the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) (www.iavcei.org)

CVS website (http://www.otago.ac.nz/geology/cvs.htm)

Welcome to the 21st issue of the newsletter of the Commission on Volcanogenic Sediments. If you have'nt got an e-mail address, or we don't have it, then you'll continue to receive the paper version. Membership is $5 U.S. a year, either send cash directly to the newsletter editor, or, if you see one of the co-leaders at a conference, please hand it to them directly. This fee covers production and postage of the newsletter.

If you have any information on meetings, or recent and forthcoming publications of interest to CVS members, please contact any of the co-leaders at the addresses below. Please also contact us with any suggestions for short research or discussion articles that might be suitable for the newsletter. Striking images of volcaniclastic sediments and processes are also welcome as jpg files.

## Co-leaders (2004-2008)

| | | |
|---|---|---|
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# Editorial

Karoly Nemeth, in his report (reproduced in full on the CVS web-site) from the 22nd IAS assembly in Opatija, Croatia, (September 17-19, 2003), highlighted the growing artificial divide between 'classical sedimentology', often organised by depositional environment, and volcano-sedimentology. This trend is made apparent by the segregation of the two communities into, respectively, the world of sedimentological conferences and journals and the sphere of volcanological meetings and journals.

This is unfortunate since it reinforces the artificial divide between what are in reality complementary disciplines. It is up to us, as CVS members, to propose, convene, and lobby for sessions that bridge the divide between classical sedimentology and volcano-sedimentology and to publish in both the volcano- and sedimentology-focussed literature.

Vern Manville, Wairakei

*Volcaniclastic sediments from the aftermath of the 30 km$^3$ (DRE) 181 A.D. Taupo eruption, New Zealand. Sheet-like pumiceous sands deposited by hyperconcentrated flows pass upwards into trough cross-bedded sands, before being erosively terminated by a valley-wide unconformity cut by a break-out flood from intra-caldera Lake Taupo.*

# Conference reports

### XXIII General Assembly of the International Union of Geodesy and Geophysics (IUGG), June 30 – July 11, 2003 Sapporo, Japan

Japan hosted the IUGG General Assembly in July 2003. IUGG is the parent body of IAVCEI, which in turn is the parent body of the CVS: this, plus the location of the meeting in Japan made this assembly of particular interest to volcanologists and volcano-sedimentologists.

*Subaqueous volcanogenic mass flow deposits on the Shakotan Peninsula, Hokkaido*

A number of volcano-focussed field-trips were offered, including a tour visiting calderas (Toya and Shikotsu), domes in active volcanoes (Hokkaido-Komagatake, Usu and Tarumai), and the ignimbrite fields of Hokkaido, led by Mitsuhiro Nakagawa. This field trip, in spite of the common rain, was well organized with an excellent mixture of science and cultural experiences. Another field trip took participants of a working group to active volcanoes (Mayon, Pinatubo, and Taal) in the Philippines, and was led by E. Listanco, E. Corpuz, M. Lagmay and S. Catane. Shorter fieldtrips visited Unzen to study the eruptive products and consequences of the 2000 A.D. eruption (T. Ui, M. Nakagawa and S. Takarada) and the Miocene subaqueous volcanic succession of north-east Hokkaido on the Shakotan Peninsula (H. Yamagishi, R. Cas, W. Hirose and T. Yasuda). Both short field trips were very informative and gave good possibilities to discuss frontline research into dome forming, phreatic explosions, subaqueous lava fountaining and the generation of pyroclastic density currents through subaqueous explosive eruptions.
Sessions offered by IAVCEI were held during the first week of the meeting, and were grouped into 9 thematic sessions;

- Volcanic flows: observation, experiment, and theory
- Origin of arc magma

- Subaqueous volcanism, volcanogenic sedimentation and hydrothermal systems
- Caldera formation and unrest
- Reassessing the volcanic plutonic link
- Volcano structure and scientific drilling
- Integrated monitoring of active volcanoes
- Detecting magma chambers
- Assessing volcanic risk

The homepage of the meeting is still alive, and abstracts can be accessed from: http://www.jamstec.go.jp/jamstec-e/iugg/

Dr. Ulrike Martin (Freiberg)

## EARTH SCIENCES INTO THE 3RD MILLENNIUM: METHODS, MATERIALS, MECHANISM: GEO2003: 22-25 SEPTEMBER 2003

The interdisciplinary joint GEO2003 meeting was organized by the Deutsche Mineralogische Gesellschaft, Geologische Vereinigung, and the Deutsche Geophysicalische Gesellschaft and held at the Institute für Geologie, Mineralogie und Geophysics of the Ruhr-Universität, Bochum, Germany. Since the meeting was generally interdisciplinary, relatively few presentations dealt with volcanogenic sedimentation. Very marginally, a plenary talk by J. Ritter from Karlsruhe gave a few words on pyroclastic processes associated with the "*Mantle plumes and intraplate volcanism in Central Europe*". Among the symposia "*Tectonic Geomorphology*" (M. Strecker and S. Thomson) examples from the Pannonian Basin were shown for the usefulness of erosional remnants of maar-diatremes to reconstruct paleogeomorphology and erosion base level changes (Martin, U. and Nemeth, K.). In the session, "*Processes in subduction zones*" (H. -P. Harjes and R. Kind), the presentations largely focused on the geochemical fingerprints of subduction zones around the Central America (Krawczyk, C.M., Kind, R., Kukowski, N, Weinrebe, W, Sperner, B etc.), a few aspects of volcaniclastic sedimentation along these marginal zones were shown, mostly in poster session such as sea mount subduction near Costa Rica (Huhnerbach, V). The session, "*Case studies of magmatic processes*" (G. Franz) offered more volcaniclastic-relevant presentations centered around ignimbrites from Lesbos (Helbling, A.), modeling of gravity flows and their volcanic hazard implication in studies of Volcán Ceboruco, Mexico (Martin, U), hyaloclastites of the La Negra Formation from Northern Chile (Nemeth et al.), Permocarboniferous laccoliths from eastern Germany and their margin (Mock, A, Breitkreuz, C.) and natural glass in pyroclastic rocks from Eifel (Goepel, A.).
The meeting homepage is accessible via: www.geo2003.rub.de

Dr. Ulrike Martin (Freiberg)

# NEOGENE-QUATERNARY CONTINENTAL MARGIN VOLCANISM
# GSA – PENROSE CONFERENCE
# JANUARY 12-16, 2004, METEPEC, PUEBLA, MEXICO

*Ring-plain sediments including lahar deposits burying Aztec pyramids in Cholula. Popocatapetl on left horizon, Volcan Iztaccihutalcan on the right.*

In 2004 January, Mexico hosted a Penrose Conference on continental margin volcanism with the purpose of evaluating the present state of knowledge on the sources and evolutionary paths of magmas that form in a continental margin volcanic settings. In addition to petrological and geochemical questions, the complexities of volcanic styles that promote explosive eruptions, sector collapse of volcanoes and domes, volcaniclastic sedimentation, and related volcanic hazards were discussed. Although most of the contributions focused on case studies located on the American continents (Andes, Central American Volcanic Arc, Transmexican Volcanic Belt, Cascades, Aleutians), examples from other parts of the world (e.g. Japan, Italy, Indonesia and New Zealand) were presented for comparison. The Conference was organized by Claus Siebe (UNAM, D.F.), Jose Luis Macias (UNAM, D.F.) and Gerardo J. Aguirre-Diaz (UNAM-Juriquilla, Querétaro). They did a great job, attracting a large number of people from 15 countries, and most importantly from a very diverse range of research fields. The conference was organized in a traditional Penrose style, having introductory talks that gave an overview of the state of the art of the presented research fields. Selected scientists gave a personal view in a Round Table discussion about their ideas of the present state of the certain research fields, while the audience were free to question or even interrupt the speakers. This set-up obviously initiated some very fruitful discussions and allowed a closer personal contact among researchers, which often ended in a “tequilla” session in the evening hours.

The following sessions were organized:
**1:** Origin and petrology of continental margin volcanism. Examples from the Americas (Charles Langmuir, Gerhard Wörner)
**2:** Petrology of the Mexican Volcanic Belt. A summary of 25 years of continuous research (Jim Luhr)

**3:** Chemical composition and physical role of gases in continental margin volcanism (Fraser Goff, Jim Gardner)

**4:** Sector collapse, avalanches and lahars (Kevin Scott)
**5:** Explosive silicic volcanism and sedimentation processes (Mike Branney, Bill Bonnichsen)

**6:** Lava domes and block-and-ash flow eruptions (Marcus Bursik, Hans-Ulrich Schmincke)

**7:** Volcanic risk and hazard mitigation in Neogene-Quaternary continental margin volcanism (Bob Tilling, Mike Sheridan)

The last 4 sessions were the most interesting ones for CVS members. In Session 4, an introductory talk given by Kevin Scott, "Lahars, lidar, and forensic documentation of flow origins, behaviours, and pathways at Mount Rainer, Washington" gave a good base tone for the Round Table discussion lead by Kevin Scott, Siebert, Cepeda, T.C. Pierson, Lucia Capra and Voight. In Session 5, Mike Branney's talk, "Using lithofacies architectures of ignimbrites to decipher the history of rapidly changing events during large explosive eruption", gave an interesting idea of the application of sequence stratigraphy methods to unfold the transportation and deposition history of ignimbrites. Bill Bonnichsen talked about, "Distinguishing very high-grade ignimbrites from clastogenic silicic lavas" showing graphic examples from the Western Snake River Rhyolite Province. After these introductory talks, a Round Table was lead by Mike Branney, Bill Bonnichsen, James D.L. White, Greg Valentine, Gerardo Carrasco-Nunez and Michael Ort. In Session 6 a theoretical aspects of flow mechanism was outlined by Marcus Bursik "Block-and-ash flows – volcanic granular flows". These theoretical considerations were followed a presentation and plenty of field evidences from the Canary Islands by Hans-Ulrich Schmincke in his talk "Flow units and flow units". The Round Table lead by Marcus Bursik, Hans-Ulrich Schmincke, Jose Luis Macias, Nancy Riggs and Grant Heiken gave an extra spark to the discussion. In Session 7, the main goal of the discussion centred on hazard studies and potential hazard mitigation strategies. Bob Tilling gave a personal perspective of his enormous experience from real situations the USGS faced in the past decades, "Reducing risk at continental-margin volcanoes". Mike Sheridan in his talk "Information technology and volcanic hazards" gave an introduction of the new computer programs(s) abilities to model volcanic flows such as lahars. The Round Table by Bob Tilling, Mike Sheridan, J.M. Espindola, Gerardo Carrasco-Nunez, Servando De La Cruz and John S. Pallister gave a special flavour to the discussion with plenty of examples from the active volcanoes of Mexico.
After the discussions on these topics, a large number of posters gave a very effective way to learn, discuss, make friends, and perhaps set up future projects.
The meeting was followed by a two-day field workshop around Popocatepetl examining the diverse depositional environment of a ring plain, the potential hazards to the surrounding areas and the cycles of large-scale volcanic collapse events.
A Special Volume of the Geological Society of America Bulletin is planned.
The homepage of the Penrose Conference is still alive: although the abstracts are not accessible the program and titles of the presentations can be browsed on:
http://tepetl.igeofcu.unam.mx/penrose/index.html

Dr. Karoly Nemeth (Budapest) and Dr. Ulrike Martin (Freiberg)

# Book reviews

**Title: Pyroclastic Density Currents and the Sedimentation of Ignimbrites**
**Series: Geological Society Memoirs, M27**
**ISBN: 1-86239-124-6**
**Author: M Branney (Leicester University, UK) & P Kokelaar (Liverpool University, UK)**
**£65.00 List Price**

Pyroclastic density currents are awesome volcanic phenomena that can wreak destruction on a regional scale, and can impact global climate. They deposit ignimbrites, which include vast landscape-modifying sheets with volumes exceeding 1000 $km^3$. This book takes stock of our understanding of pyroclastic density currents, and presents a new conceptual framework for investigating how ignimbrites are deposited. It integrates the results of field-based studies, laboratory experiments and numerical modelling, including work on clastic sedimentology and industrial particle transport. Topics covered include the behaviour of particulate currents, mechanisms of clast support and segregation, interpreting ignimbrite lithofacies and architectures, and future research. The new approach focuses on processes and conditions within the lower flow-boundary zone of a current. Superb diagrams explain many new concepts, while the 95 photographs make an explanatory atlas of deposit types.

This is essential reading for workers investigating volcanic hazards, and for anyone wishing to interpret modern or ancient ignimbrites, as well as other catastrophically emplaced sediments.

Paperback
No of Pages: 130

**Title: Volcanoes of Southern Italy (VI02)**
**Series: Geological Society Earth in View**
**ISBN: 1862391386**
**Author: J E Guest, P D Cole, A M Duncan and D K Chester**
**£65.00 List Price**

The volcanoes of southern Italy show a wide diversity in the type of volcanism. In consequence, the products and the resulting landforms illustrate most of the known volcanic phenomena, all within a small geographic area. Because the area was at the centre of western civilization in classical times, there is a longer, more continuous record of observed volcanism than in virtually any other part of the world. Thus studies of volcanoes in southern Italy have played a central role in the development of ideas in earth science.

The volcanic history, eruptive activity and the products, petrology, and hazard, are described for seventeen volcanic centres, nine of which have been active in historical time. In addition, the human history of those living on the volcanoes is described, as well as some key scientists and their ideas developed from studies of these volcanoes and their activity.

The book is aimed at providing a background for those visiting southern Italian volcanoes on field trips, to start new research or just for general interest, as well as those wanting to find out more about them.

Paperback
No. of Pages: 320

**Title: Volcano-Ice Interaction on Earth & Mars, SP202**
**Series: Geological Society Special Publications**
**ISBN: 1-86239-121-1**
**Author: Edited by J L Smellie (British Antarctic Survey, UK) & M G Chapman (US Geological Survey, US)**
**£90.00 List Price**

This volume focuses on magmas and cryospheres on earth and Mars and is the first publication of its kind to combine a thematic set of contributions addressing the diverse range of volcano-ice interactions known or thought to occur on both planets. Understanding those interactions is a comparatively young scientific endeavour, yet it is vitally important for a fuller comprehension of how planets work as integrated systems. It is also topical since future volcanic eruptions on earth may contribute to melting ice sheets and thus to global sea level rise.

Papers included here are likely to influence the choice for future Mars missions in exobiologically important areas. On Earth, snow and ice are widespread, not only in extensive ice caps but also as alpine glaciers at high elevations in tropical regions. By contrast, Mars today is an arid volcanic planet with only small polar ice-caps although an abundance of water is believed to be trapped in the cryolithosphere. It is also thought that the planet may have sustained extensive frozen oceans early in its history. The presence of a former hydrosphere, a cryosphere and coincident volcanism thus make Mars the likeliest prospect for the first discoveries of life away from Earth. Much research has assumed that terrestrial volcano-ice systems are plausible analogues for putative Martian examples, but until mankind finally sets foot on Mars, there is no simple test for that assumption.

Contents: Introduction: Volcano-ice interaction on Earth and Mars, J L Smellie, M G Chapman • Heat transfer and melting in subglacial basaltic volcanic eruptions: implications for volcanic deposit morphology and meltwater volumes, L Wilson & J W Head • Mars: a review and synthesis of general environments and geological settings of magma - H2O interactions, J W Head & L Wilson • The 1969 subglacial eruption on Deception Island (Antarctica): events and processes during an eruption beneath a thin glacier and implications for volcanic hazards, J L Smellie • A brief overview of eruptions from ice-covered and ice-capped volcanic systems in Iceland during the past 11 centuries: frequency, periodicity and implications, G Larsen • Basaltic pahoehoe lava-fed deltas: large-scale characteristics, clast generations, emplacement processes and environmental discrimination, I P Skilling • Architecture and evolution of hydrovolcanic deltas in Marie Byrd Lane, Antarctica, W E Lemasurier • Facies analysis of proximal subglacial and proglacial volcaniclastic successions at the Eyjakjallajokull central volcano, southern Iceland, S C Loughlin • Glacial influences on morphology and eruptive products of Hoodoo Mountain

volcano, Canada, B R Edwards & J K Russell • Effusive intermediate glaciovolcanism in the Garibaldi Volcanic Belt, southwestern British Columbia, Canada, M C Kelman, J K Russell & C J Hickson • Physical volcanology of a subglacial-to-emergent rhyolitic tuya at Raudufossafjoll, Torfajokull, Iceland, H Tuffen, D W McGarvie, J S Gilbert, H Pinkerton • Lithofacies analysis and $^{40}Ar/^{39}Ar$ geochronology of ice-volcano interactions at Mt. Murphy and the Crary Mountains, Marie Byrd Land, Antarctica, T I Wilch & W C Mcintosh • Volatiles in basaltic glasses from a subglacial volcano in northern British Columbia (Canada): implications for ice sheet thickness and mantle volatiles, J E Dixon, J R Filiberto, J G Moore & C J Hickson • Layered, massive and thin sediments on Mars: possible Late Noachian to Late Amazonian tephra? M G Chapman • Rootless cones on Mars: a consequence of lava-ground ice interaction, S A Fagents, P Lanagan & R Greeley • The hyaloclastite ridge formed in the subglacial 1996 eruption in Gjalp, Vatnajokull, Iceland: present day shape and future preservation, M T Gudmundsson, F Palsson, H Bjornsson & P Hognadottir • Subglacial volcanic features beneath the West Antarctic Ice Sheet interpreted from aeromagnetic and radar ice sounding, J C Behrendt, D D Blankenship, D L Morse, C A Finn & R E Bell • Spectroscopic and geochemical analyses of ferrihydrite from springs in Iceland and applications to Mars, J L Bishop & E Murad • Geochemical and mineralogical analyses of palagonitic tuffs and altered rinds of pillow basalts in Iceland and applications to Mars, J L Bishop, P Schiffman & R Southard • Distinguishing palagonitized from pedogenically-altered basaltic Hawaiian tephra: mineralogical and geochemical criteria, P Schiffman, R Southard, D D Eberl & J L Bishop • Identifying bio-interaction with basaltic glass in oceanic crust and implications for estimating the depth of the oceanic biosphere: A review, H Furnes, H Thorseth, T Torsvik, K Muehlenbachs, H Staudigel & O Tumyr •

Hardback
No of Pages: 384

**Title: Volcanic Hazards and Disasters in Human Antiquity**
**Series: Special Publications of the Geological Society of America**
**ISBN: 0-8137-2345-0**
**Authors: Floyd W. McCoy, Grant Heiken**
**Price: $28 member, $35 non-member**

Huge volcanic eruptions ravage civilizations by destroying cities and burying landscapes. The records of such disasters are preserved within and beneath tephra, as are the consequent alterations to human history by such cataclysmic events. These records also preserve the responses to such disasters—too often, a reoccupation of the same landscape, ignoring the hazards inherent in volcanism. This 8 chapter volume brings together geologists and archaeologists (in the evolving scientific subdiscipline of archaeological geology, or geoarchaeology) to discuss the impacts of volcanic hazards and disasters on prehistoric and historic cultures at regional and local scales. Areas discussed range from Africa and Central America to Indonesia, England, Hawaii, and Greece. The result is a fascinating book for scientists of all disciplines.

Softcover
Total Pages 105

# Forthcoming meetings

**EGU (EUROPEAN GEOSCIENCES SOCIETY) 1ST GENERAL ASSEMBLY, NICE, 25-30 APRIL 2004 (**www.copernicus.org/egu2004)

**NH 11.01: Modelling, computer-assisted simulations and mapping of natural phenomena for hazard assessment**

**Conveners:**

Giulio IOVINE, CNR-IRPI, University of Calabria, Italia (g.iovine@irpi.cnr.it)

Michael SHERIDAN, Dept. of Geology, State University of N.Y, USA (mfs@geology.buffalo.edu)

Salvatore DI GREGORIO, Dept. of Mathematics, University of Calabria, Italia (dig@unical.it)

This session deals with new methods of hazard analysis and modelling of complex natural phenomena by means of computer-assisted techniques. We invite the submission of contributions on innovative approaches of simulation, as well as on case studies and novel methods of model calibration. State-of-the-art research in the field of computer-assisted simulation of complex natural phenomena, and of related hazard mapping techniques, together with a comparative discussion on potential and limits of different modelling approaches (e.g. approaches based on differential equations, cellular automata, statistical analysis, etc.), will be the topics of talks given by invited speakers.

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**AOGS (ASIA-OCEANIA GEOSCIENCES SOCIETY) 1ST ANNUAL MEETING, SINGAPORE, 5-8 JULY 2004** (www.asiaoceania.org/index.html)

**NH.4:** Modelling and Simulation of Volcanic Surface Flows, Floods, Debris Flows and Other Fast-Moving Flow-Type Landslides for Hazard Mitigation

**Conveners:**

Giulio IOVINE, CNR-IRPI, University of Calabria, Italia (g.iovine@irpi.cnr.it)

Michael SHERIDAN, Dept. of Geology, State University of N.Y, USA (mfs@geology.buffalo.edu)

Salvatore DI GREGORIO, Dept. of Mathematics, University of Calabria, Italia (dig@unical.it)

Volcanic surface flows, floods, debris flows and other fast-moving flow-type landslides pose serious risk conditions for the human environment in many parts of the world. In typical risk analyses, after defining type and severity of a given dangerous phenomenon, a distinct step that commonly follows is hazard forecast in terms of time of occurrence. A fundamental task is then to determine the area influenced by the hazardous phenomenon, together with its evolution in space and time, once it has become activated. Finally, the presumed effects on the elements at risk can be estimated.

In the literature, different approaches to modelling complex natural phenomena are generally based on computer-assisted techniques of computation. Some models "only" focus on the problem of time-prediction and make use of either physical-based or empirical methods of analysis. Other types of analysis (known as “dynamic methods”) attempt to predict the evolution in space and in time of a

given natural phenomenon once it has been triggered. In such a case, the evaluation of the area affected by the phenomenon, from its "source" to its final stage of development, constitutes the main topic of the study.
With regard to both the mentioned approaches, this session deals with innovative methods of modelling and simulation of volcanic surface flows, floods, debris flows and other fast-moving flow-type landslides for hazard mitigation.
Contributions on original techniques of simulation, as well as on case studies - preferably related to the Asia-Oceania region – and novel methods of model calibration and validation are solicited. State-of-the-art research, together with a comparative discussion on the potential and the limits of different modelling approaches, are the topics that we solicit for this session.

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**AGU WESTERN PACIFIC GEOPHYSICS MEETING, HONOLULU, HAWAII, AUGUST 16-20, 2004** (www.agu.org/meetings/ (click on the 2004 WPGM meeting))

**Volcano-hydrologic processes, deposits, and hazards on the Pacific Rim**
Volcano-hydrologic processes are amongst the most serious hazards arising from volcanic activity around the Pacific Rim, and include a wide variety of phenomena operating over a range of both physical and chronological scales. They arise from interactions between the products of volcanic activity, environmental water, and gravity. Examples include flank collapses of volcanic edifices that produce debris avalanches, syn- and post-eruptive remobilisation of pyroclastic materials, lahars, and volcanogenic floods and tsunamis. Key issues to be addressed include the nature and scale of the processes, and an assessment of the hazard that they pose to human life and infrastructure.

**Convenor:**
Vern Manville, Institute of Geological and Nuclear Sciences, Wairakei Research Centre, Taupo. E-mail: v.manville@gns.cri.nz

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**IGC 2004 - 32ND INTERNATIONAL GEOLOGICAL CONGRESS AT FLORENCE - ITALY, AUGUST 20-28, 2004**

**G22: Stratigraphy and geology in volcanic areas**
**Convenors:**
Gianluca Groppelli, CNR-IDPA, Italy (gianluca.groppelli@unimi.it
Lothar Viereck-Goette, University Jena, Germany (viereck@geo.uni-jena.de)

The objective of this session is to highlight recent studies on the stratigraphy, structure and evolution of active and extinct volcanic terrains. We invite scientists with diverse geological backgrounds devoted to the analysis and the geological mapping of volcanic successions. Because of the interdisciplinary nature of this topic, we welcome contributions based on a combination of e.g. sedimentological, volcanological, pedological, geochemical, mineralogical, and/or geophysical methods. Of particular interest are innovative approaches or the application of new techniques in order to decipher stratigraphic successions.

The session will also focus on the geological survey methodology in volcanic areas. We invite contributions that deal with the definition of mappable stratigraphic units during the field survey, taking into

account international and national guidelines. The session will give the opportunity to present new and innovative geological maps and volcanic hazard maps of active volcanic terrains.

The Geological Society of America (GSA) and the Geological Society of London has expressed interest in publishing a book arising out of the papers in the session.

**G21.11: Sedimentology of volcaniclastic sediments**
**Conveners:** B. Capaccioni, J.L. Macías, and K. Scott

We are pleased to invite you to present papers regarding sedimentation around volcanic terrains. This session will be devoted to understand the genesis of sector or flank collapses, catastrophic rain-triggered debris flows such as those having recently occurred at Sarno (Naples, southern Italy) and Casita volcano (Nicaragua), and tsunami-triggering events as at Stromboli volcano (southern Italy). Papers evaluating the potential hazards that these events represent for the surrounding population are also welcomed.

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## 2ND INTERNATIONAL MAAR CONFERENCE

*Geological Institute of Hungary, Geological Institute of Slovakia and Würzburg University*
Kecskemét/Lajosmizse, Hungary
15-29 September 2004

**Pre-meeting workshop** in Würzburg: 15 - 17 September 2004

**Pre-conference field trips** to maar fields in Hungary and Slovakia: 18 - 21 September 2004
Meeting in KecskemÈt/Lajosmizse, 21 - 25 September 2004

**Post-meeting field trips** to maar fields in Hungary and Slovakia: 26ñ29 September 2004

**Sponsors**: International Association of Volcanology and Geochemistry of the Earth Interior
(**IAVCEI**), International Association of Sedimentologists (**IAS**), Geological Institute of Hungary (**MAFI**), Geological Institute of Slovak Republic (**GSSR**)

Volcanic activity in terrestrial settings often result in the formation of volcanic fields rather than single volcanic edifices. Monogenetic volcanic fields are those in which individual volcanoes (mainly basaltic) commonly form during single episodes of volcanic activity, without subsequent eruptions, while the volcanic field as a whole may be active for millions of years. There are two major types of volcanoes that may develop in such volcanic fields according to the availability of external water for the magma to interact with and producing
phreatomagmatic explosion. In the case of lack of external water, scoria cones may develop, otherwise their phreatomagmatic equivalents such as maardiatremes, tuff-

rings or tuff cones may develop. In the light of sedimentology the aim of this conference, following the
successful First International Maar Conference held in Daun, Germany in 2000, is to promote dialogue between researchers in the fields of

1) physical processes governing the formation of maars, tuff rings tuff cones, or pyroclastic mounds,
2) syn-volcanic sedimentary processes in the accumulation of associated tephra units,
3) syn-volcanic remobilisation of tephra on the inner and/or outer flank of the volcanoes,
4) post-eruptive remobilisation of tephra into craters respectively to maars, and
5) sedimentation in a closed lacustrine environment as an important sedimentary trap in an otherwise quickly eroding terrestrial environment.

The purpose of this conference is to allow the meeting of scientists working in a seemingly very distant research areas, but in the same geological phenomena, maar volcanism. Contributions are invited from researchers working on all aspects of intracontinental monogenetic volcanism especially to their sedimentary processes and products in different terrestrial settings, lacustrine and/or shallow marine environments, from Archaean times to the present day. The Organizing and Scientific Committee selected 13 Scientific Symposia to
cover a wide range of research fields dealing with monogenetic volcanic fields and maar/diatreme volcanism. Contributions addressing the following themes are particularly encouraged and likely to enjoy attention for Sedimentologists:

**Symposium 1**: MAARS AND THEIR TEPHRA DEPOSITS
**Symposium 2**: DIATREMES AND THEIR ROOT ZONES
**Symposium 4**: DYKES, SILLS, PLUGS, DOMES, SCORIA CONES, AND LAVA LAKES IN MAAR-DIATREME VOLCANOES
**Symposium 7**: MAAR CRATER LAKE LIMNOLOGY AND MAAR CRATER SEDIMENTS
**Symposium 8**: PEPERITES IN MAARS AND TUFF RINGS/CONES
**Symposium 9**: SURTSEYAN VOLCANISM

## PUBLICATION

Delegates are invited to contribute papers to a Special Volume of the *Journal of Volcanology and Geothermal Research* collecting papers dealt with primary processes responsible in the formation of maar-diatreme, tuff ring, tuff cone, scoria cone or pyroclastic mound volcanoes. The manuscripts should be submitted to any of the Guest Editors: Ulrike Martin (Freiberg), Karoly Nemeth (Budapest), Volker Lorenz (Würzburg), James DL White (Dunedin). Manuscripts dealing with sedimentary processes in maar lakes, secondary reworking and/or re-sedimentation of primary pyroclasts on maar-diatreme, tuff ring, tuff cone, scoria cone or pyroclastic mounds are planned to be published in a Special Volume of one of the leading relevant Journals, however the necessary agreements will only be reached in February 2004. Submission of manuscripts into either of the Special Volumes should be by 20 November 2004. The publications will go through normal peer review and after acceptance by the Editorial Board, they are planned to be published late 2005.

Two field-trip guide books will be presented; 1) Mio-Pliocene phreatomagmatic volcanism in the western Pannonian Basin by U. Martin and K. Nemeth as a volume of *Geologica Hungarica Series Geologica*, and 2) Plio-Pleistocene maar-diatreme volcanism of southern Slovakia and northern Hungary by V. Konecny and J. Lexa as a *Special Volume of the Geological Institute of Slovak Republic*.

For further information please visit the conference website: **www.mafi.hu**

**Contact Persons from the Organising Committee**

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**IAVCEI GENERAL ASSEMBLY 2004, PUCÓN, CHILE, 14-19TH NOVEMBER 2004**
(www.sernageomin.cl/iavcei/iavcei.html or www2.sernageomin.cl/iavcei)

This is the most important international volcanological meeting organised every 3 or 4 years. A very interesting Scientific Programme has been organised, including a broad variety of scientific sessions, pre- and post meeting field excursions, workshops, courses, information meetings, etc. We are certain that this programme together with the beautiful and variable scenery of the Andes will attract many of you to come.

NEWSFLASH!!! A CVS-sponsored session will be held at the Pucón meeting: details on the conference website in March.