



23rd Biennial Conference of the
Australian Speleological Federation
28th December 2000 - 3rd January 2001
Bathurst, New South Wales, Australia

Programme

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Convenor's Welcome

Welcome to 2001: a cave odyssey, the 23rd Biennial Conference of the Australian Speleological Federation Incorporated. After a few drinks, there will be a test to see if you can say that.

A great deal of effort has been put into the organisation of this Conference by a number of people (who are listed on page 31). I hope that you enjoy the results of their efforts. The programme is very full with a choice of presentations and activities in virtually every time slot. There are six themes in the programme and there are a number of presentations, workshops and other activities in each so there is something to interest everyone, whatever your interest in caves and caving. We have full run of the facilities of All Saints' College and I am sure that everyone will enjoy their stay here.

I hope to see people participate in the programme, learn something, contribute, make new friends, renew old friendships and most of all, have fun.

Angus R. Macoun,
Convenor.

Conference Staff

Convenor/Photography Competition - Angus Macoun
Site Manager/Secretary/Treasurer - Jodie Rutledge
Programming - Jill Rowling
Post-Conference Trips - Walter Waener
Merchandise - Jenny Whitby
On-Site Activities - Ian and Anna Binnie
Off-Site Activities - Joan Crabb

Special Guests

The Conference will be opened by Patrick Larkin, Board Member of Jenolan Caves Reserve Trust (and SUSS member). The Speleo Art Down Under exhibition will be opened by Cr. Ian Macintosh, Mayor of Bathurst. The guest speaker at the Cavers' Dinner will be Alan Warild.

Facilities

All Saints' College has accommodation which includes a variety of room configurations, common bathrooms, washing and ironing facilities, payphones and common rooms with a kettle, toaster, fridge, television and VCR. The school also has computers, swimming pool, art room, library and chapel as well as the use of sports venues and equipment described in Non-Caving Activities on page 28.

Please stay off the cricket pitch in the centre of the main oval. Please ensure that children are suitably supervised in the pool, gym and on the play equipment.

There is a licenced Conference Bar which will be open from 5:00 p.m. each evening and will be selling a range of drinks and snacks.

Competitions

There are several competitive events being held during the Conference. These are the Prussik Challenge, SpeleoSports, Survey Challenge and Photography Competition.

Entries for Division 5 and 6 of the Photography Competition close on the 1st January. They are for slides only and may include pictures taken during the Conference as we have E6 processing equipment on site. Division 5 is Conference Themes and will be judged by Conference participants on the evening of Monday, 1st January. A slide show of entries into the other divisions will be held following the judging of Division 5. Division 6 is Humour and will be judged by the audience at the Cavers' Dinner on Tuesday, 2nd January.

Emergency Information

In the case of an emergency situation, all conference attendees are to assemble on the front oval of the school. The name of this oval is the "Tracey Oval".

In the case of a fire, remove yourself from any immediate danger and ring the 000 emergency services number.

Bathurst Base Hospital is nearby in Mitre St, and has a 24hr casualty service. An after hours chemist will be rostered open in Bathurst. Jodie Rutledge is a Registered Nurse. There will be a rostered First Aid officer during the Conference.

Contact Details During the Conference

Jodie Rutledge
Site Manager/Secretary/Treasurer
0408 261-959

Angus Macoun
Convenor
0414 776-456

Jenolan Caves
(02) 6359-3311 (phone)
(02) 6359-3307 (facsimile)

Abercrombie Caves
(02) 6368-8603 (phone)
(02) 6368-8634 (facsimile)

All Saints College
(02) 6331-3911 (answering machine)
(02) 6332-2236 (facsimile)
0427 287-072 (David Bragg, School Bursar - in emergency)

Conference Themes

The Conference has six themes. Each presentation, seminar, workshop and activity is identified in the programme as belonging to a particular theme by these abbreviations.

CC	Creative Caving - art including photography
H	History
HT	How-To - equipment and techniques
WF	Why-For - science
M	Management
E	Exploration
ASF	Australian Speleological Federation meetings and workshops

Timetable

		Pages
Thursday, 28th December	Arrival Day	6
Friday, 29th December	Abercrombie Day	6,11
Saturday, 30th December	Presentation Day	7,12
Sunday, 31st December	Jenolan Caves Big Day Out & New Year's Eve	8,20
Monday, 1st January	Happy New Year & SpeleoSports	9,23
Tuesday, 2nd January	Borenore Big Day Out & ASF Council Meeting	10,27
Wednesday, 3rd January	Post-Conference Trips start	10

Thursday, 28th December 2000

- 9:30 Karst Index Working Group meeting {ASF} until 6:00
 - 3:00 Registration open
 - 6:00 Wecome BBQ [front lawn of All Saints' College]
 - 8:00 Registration closes for today
-

Friday, 29th December 2000

- 8:00 Breakfast [Punchbowl Room]
- 8:00 Registration open until 8:45
- 9:00 Coaches leave for Abercrombie Caves
- 10:30 Official Conference Opening (Patrick Larkin, Jenolan Caves Reserve Trust Board Member) [Grand Arch, Abercrombie Caves]
- 11:00 Abercrombie tourist cave visits
Help yourself to morning tea and lunch.
- 2:00 Coaches leave for Bathurst
- 3:30 "Speleo Art Down Under" exhibition opening {CC}
(Mayor of Bathurst, Cr. Ian Macintosh) with afternoon tea [Artists Gallery]
- 4:00 Koonalda Cave poster {HT} (Ian Cooper for SUSS) [Baal Room]
- 4:30 Junee-Florentine Exploration {E} Karst Index Database {ASF}
(Jeff Butt) [Baal Room] (Mike Lake) [Xanadu Room]
- 5:00 Understanding Lighting for Photography seminar {CC}
(Angus Macoun) [Baal Room]
- 6:00 Dinner [Punchbowl Room]
- 6:45 Photographic Expedition to Jenolan Caves {CC} (Angus Macoun)
- 7:00 Mitchell-Palmer Karst slide show {E} (Peter Berrill) [Baal Room]

Saturday, 30th December 2000

- 8:00 Breakfast [Punchbowl Room]
- 8:00 Day registration until 8:45 a.m.
- 9:00 Keynote Address (Bill Allen - NPWS, Bathurst) [Punchbowl Room]
- 10:00 Hunting Signatures {H} (Darryl McDowell, Macquarie NHT Project - The Broad presented by Angus Macoun) [Wyanbene Room] Approach {M} (E. Crabb) [Carpentaria]
- 10:30 Morning Tea
- 11:00 JCRT State of the Environment Report {M} (Andy Spate) [Wollondilly Room] Macquarie NHT Implications workshop {M} until 12:30 (Evalt Crabb) [Carpentaria Room]
- 11:30 Would We Develop Imperial Cave Today? {M} (E. Holland) [Wollondilly Room]
- 12:00 Cliefden Area Hydrology {WF} (Steve Lucas) [Xanadu Room]
- 12:30 Lunch [Punchbowl Room]
- 1:30 Bullita Cave {E} (Chris Bradley) [Baal Room]
- 2:00 Jenolan Hydrology {WF} (Henry Shannon) [Xanadu Room] Bolting Techniques {HT} (Jeff Butt) [Wyanbene Room]
- 2:30 ASF Future Directions workshop {ASF} (Angus Macoun) [Punchbowl Room]
- 3:30 Poster Session and Afternoon Tea
- 4:00 Selection of a Cave for Wild Adventure Tours workshop {M} (Nick White) [Carpentaria Room] Aragonite in NSW Caves {WF} (Jill Rowling) [Tantanoola Room]
- Cataloguing Helictites & Other Capillary-Controlled Speleothems {WF} (Jill Rowling)
- 5:00 Bar opens [Punchbowl Room]
- 6:00 Dinner [Punchbowl Room]
- 7:00 Art Techniques {CC} (June MacLucas) [Baal Room] 7:30 Prussik Challenge (Gary Whitby) [Abracurrie Room]
- 8:30 Maps of Australian Caves and Karst presentation and workshop {HT} (John Dunkley) [Wollondilly Room]

Sunday, 31st December 2000

- 7:00 Breakfast [Punchbowl Room]
- 8:00 Coaches leave for Jenolan Caves Historical Trip to Jenolan {H} (John Dunkley)
arriving at Jenolan at 10:30
- 9:00 Day registration [Kanangra-Boyd
Room, Caves House]
- 9:30 Mineralogy Tour of Orient Cave Speleothem McKeown's Valley Geology
Chifley Cave {WF} Tour {WF} (Jill Rowling) Walk {WF} (Anna Binnie)
- 9:45 Imperial Cave Tour
- 10:45 Elder Cave Signature Tour {H}
(Angus Macoun)
- 10:30 Morning Tea
- 11:00 Temple of Baal Tour Speleo Art workshop {CC} (June MacLucas)
[Devil's Coach House]
- 11:15 Lucas Cave Tour
- 12:30 Lunch [pick up from Kanangra-Boyd Room]
- 1:00 Lucas Cave Tour Temple of Baal Tour Jubilee Cave Speleothem
Tour {WF} (Jill Rowling)
- 2:30 Imperial Cave Tour Mineralogy Tour of Chifley Cave {WF}
- 3:30 Afternoon Tea [Kanangra-Boyd Room]
- 4:00 Coaches leave for Bathurst
- 5:00 Bar opens [Punchbowl Room]
- 6:00 Dinner [Punchbowl Room]
- 7:00 Cave Exploration in Western Guangxi Province slide show {E}
(Arthur Clarke) [Baal Room]
- 9:00 Leave for Fireworks at St Pat's Sporting Club, Kelso
- 10:30 New Year's Eve Bat Party and Launch of ASF Web Site www.caves.org.au

Monday, 1st January 2001

8:00	Breakfast [Punchbowl Room]	
8:00	Day registration until 8:45 a.m.	
9:00	Who Was Edie Smith? {H} (Norm Poulter & Albert Goede) [Baal Room] until 10:00	Scientific Publishing: Where Do Cavers Fit? {HT} (Sue White) [Xanadu]
9:30	National Cave Rescue Commission {ASF} (Grace Matts) [Xanadu Room]	NSW GIS Karst Database workshop {HT} (Peter Dykes) [Wyanbene Room]
10:00	An Evolution Of Club Caving {H} (Evalt Crabb) [Carpentaria Room]	
10:30	Morning Tea	
11:00	The Nullabor - Fuel Stove Only? {M} (Norm Poulter OAM) [Xanadu Room]	Karst Index Workshop {ASF} (Mike Lake & Jill Rowling) [Caverns Measureless]
11:30	Explorers, Surveyors & Missionaries {H} (John Dunkley) [Wollondilly Room]	
12:00	Survey of Graffiti in Cliefden Caves {H} (Ian Curtis) [Wollondilly Room]	
12:30	Lunch [Punchbowl Room]	
1:30	Survey Challenge {HT} (Ken Grimes) [Tracey Oval] until 4:30	SpeleoSports {HT} (Mark Westhorp) [Tracey Oval] until 6:00
3:30	Afternoon Tea	
4:00		Sharing Information on Speleothems & Cave Minerals workshop {WF} (Jill Rowling) [Tantanoola Room]
4:30	Mapping Tips {HT} (Ken Grimes) [Caverns Measureless]	
5:00	Bar opens [Punchbowl Room]	
6:00	Dinner [Punchbowl Room]	
7:00	Thai Karst slide show {E} (Terry Bolger) [Baal Room]	
8:00	Photography Competition Division 5 Judging [Baal Room] Slide Show of Other Divisions and Conference Pictures (Angus Macoun) [Baal Room]	
9:00	Digital Imaging seminar & Creating a Page for "Australian Caver" {CC} (Angus Macoun) [Baal Room]	

Tuesday, 2nd January 2001

- 8:00 Breakfast [Punchbowl Room]
- 8:00 Day registration until 8:45 a.m.
- 9:00 ASF Council Meeting {ASF} Coaches leave for Borenore
(Peter Berrill) [Library]
- 10:00 Caving at Borenore
(Mia Thurgate)
- 10:30 Morning Tea Help yourself to morning tea
- 12:30 Lunch [Punchbowl Room and Borenore Caves]
- 1:30 ASF Council Meeting (Cont.) {ASF} Caving at Borenore
(Peter Berrill) [Library] (Mia Thurgate)
- 3:30 Afternoon Tea
- 4:00 ASF Council Meeting (Cont.) {ASF} Coaches leave for Bathurst
(Peter Berrill) [Library]
- 5:00 Bar opens
- 6:00 Speleo Brazil 2001
(Julia James) [Punchbowl Room]
- 7:00 Cavers' Dinner
[Evalt Crabb] [Punchbowl Room]
Including prizes for Prussik Challenge, SpeleoSports, Survey Challenge, Photography
Competition and the presentation of ASF Awards by Peter Berrill.
Guest speaker is Alan Warild.

Wednesday, 3rd January 2001

- 8:00 Breakfast [Punchbowl Room]
- 10:00 Leave for post-Conference trips

Abstracts & Activity Descriptions

Friday, 29th December 2000

[HOW-TO]

Koonalda Cave

poster by Ian Cooper for SUSS in the Baal Room at 4:00

[EXPLORATION]

Current Junee-Florentine Exploration

by Jeff Butt in the Baal Room at 4:30

[ASF]

The Web based ASF Karst Index Database

by Mike Lake and Jill Rowling in the Xanadu Room at 4:30

The ASF produced a landmark document: the 1985 Karst Index. Since then, the Karst Index Database (KID) was developed using a DOS based Paradox system. Although it was basically functional, time has overtaken it in that few people are prepared to use the DOS-based system.

Towards the end of 1999 Mike Lake and Jill Rowling put forward a proposal to the ASF to get the Karst Index Database on the Web, based on Open Source software. The general concept was accepted at the January ASF council meeting, and specifications refined over the year. In Spring 2000, tenders were drafted and circulated amongst the ASF Executive, the final request for tender was advertised nationally and a programmer was selected from many tenderers. A working system was developed within two weeks.

The Web-based Karst Index Database is running on the ASF's new Web site with restricted access.

This presentation will cover:

- What is the ASF KID and who would use it?
- Advantages of a web-based KID
- Implementation and use of open source software
- Implications of open sourcing the KID software
- Security aspects and data Access Options

A separate workshop will be held on Monday to show what it looks like, how it can be used and to gauge feedback.

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[CREATIVE CAVING]

Understanding Lighting for Photography

seminar by Angus Macoun in the Baal Room at 5:00

A look at lighting for photography from the perspective of studio lighting. Various lighting techniques will be examined and demonstrated. Portrait lighting, fill techniques, use of light and shadow, lighting large areas, metering, lighting for effect and technical information will be explained. This information will be followed by discussion on how to apply these techniques to a cave situation.

[CREATIVE CAVING]

Photographic Expedition to Jenolan Caves

lead by Angus Macoun, leaving at 6:45

This trip is aimed at serious photographers who wish to have some time and co-operation to photograph in the Southern Show Caves at Jenolan. The trip may include parts of Orient Cave, River Cave, Pool of Cerberus and the Temple of Baal. Tripods and lighting equipment will be permitted as will the use of the cave lighting system. Bookings are essential with a maximum of fifteen participants.

[EXPLORATION]

Mitchell-Palmer Karst

slide show by Peter Berrill in the Baal Room at 7:00

Saturday, 30th December 2000

[KEYNOTE ADDRESS]

Aboriginal Perspectives on Caves and Cavers in Relation to Land Ownership and Aboriginal Sites

by Bill Allen - NPWS, Bathurst in the Pubchbowl Room at 9:00

[HISTORY]

Hunting Signatures

by Darryl McDowell for RSS,

presented by Angus Macoun in the Wyanbene Room at 10:00

Historically significant or just graffiti? An introduction to the RSS Signature Project of collecting historical signature information in caves. A brief introduction to the methodology and some of our preliminary findings. Come along and learn of the antics and motivations of our caving pioneers.

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[MANAGEMENT]

The Macquarie NHT Project - The Broad Approach

by Evalt Crabb in the Carpentaria Room at 10:00

For two years many people have been involved in a project in the Macquarie and Lithgow-Mudgee Regions, funded by an NHT grant. This is a tightened version of the public presentation of the findings.

[MANAGEMENT]

Jenolan Caves Reserve Trust State of the Environment Report

Jenolan Social and Environmental Monitoring Committee,
presented by Andy Spate in the Wollondilly Room at 11:00

[MANAGEMENT]

Macquarie NHT Implications

workshop chaired by Evalt Crabb in the Carpentaria Room at 11:00

Many innovations occurred during the conduct of this project with implications for documentation, karst landowner relationships and a holistic approach to karst, including land use, groundwater and vegetation on karst. The broad approach used could be applied to many other areas.

[MANAGEMENT]

Would We Develop Imperial Cave Today?

by Ernst Holland in the Wollondilly Room at 11:30

[WHY-FOR]

Cliefden Area Hydrology

by Steve Lucas in the Xanadu Room at 12:00

[EXPLORATION]

Bullita Cave

presentation and poster by Chris Bradley in the Xanadu Room at 1:30

Flood Effects in McKeowns Valley and Mammoth Cave, Jenolan Caves N.S.W.

by C. Henry Shannon in the Xanadu Room at 2:30

The creek bed in McKeowns Valley is normally dry and only for a few days a year on average are conditions wet enough to run the creek all the way to Blue Lake. Along the creek bed there are sections which leak. These submergence points are subtle streamsinks connecting to the caves below, and their locations are revealed by the advance and breakup on retreat of the running portions of the creek over a flood cycle. The capacity of these sinking points, once located, is determined by upstream to downstream flow loss measurement. Underground there is a corresponding response to these surface flood inputs in the increase in flow of the underground rivers and activation of overflow streams.

Flow measurements have been taken over the years more or less on the run and often as an adjunct to dye tracing experiments. The potential in the measurements themselves to provide answers has been overshadowed by the emphasis on dye tracing. But after doing the sums on the available data some pretty definite conclusions can be made, as follows.

Central River in Mammoth Cave has a source independent of Lower River. The river at First Crossing is fed not just from the river at Second Crossing, but from a larger and more permanent second source. The ratio of Central to Lower rivers is close to 1:4 except in low flow conditions when Central River falls away.

The water sinking outside Serpentine Cave reappears exclusively in the Northern River Passages in Mammoth Cave. The Serpentine Cave streamway itself is activated only at a higher stage, not when the water begins to sink outside the cave. In Mammoth Cave the water emerges mainly from the Infinite Crawl but also from the Central River at Second Crossing.

The Bow Cave takes water to Lower Level in Mammoth Cave but there is also a streambed submergence mostly outside the cave entrance, which remains operational if flow is diverted from Bow Cave itself. Reputedly the passage to Lower River remains dry in this situation, and it is inferred that water from the streambed sink goes directly to the Woolly Rhinoceros Cave.

The capacity of the streambed sinking points in plus the baseflow of the Jenolan Underground River, as revealed by sudden flooding, is about 1075 litres per second. Given the baseflow is typically 200 l/sec or a little more this gives 875 l/sec for this somewhat variable number.

[HOW-TO]

Bolting Techniques

by Jeff Butt in the Xanadu Room at 2:00

[ASF]

ASF Future Directions

workshop chaired by Angus Macoun in the Pubchbowl Room at 2:30

Poster Session

with Afternoon Tea at 3:30

[MANAGEMENT]

Macquarie NHT Project

by Peter Dykes in the Carpentaria room

[HISTORY]

The Abercrombie Footprint

by Glenn Woodley in the Wyanbene Room

[WHY-FOR]

Caves and Cave Biology

by Arthur Clarke in the Tantanoola Room

[WHY-FOR]

Mudgee Aquifers

by Evalt Crabb

[WHY-FOR]

Corrosion

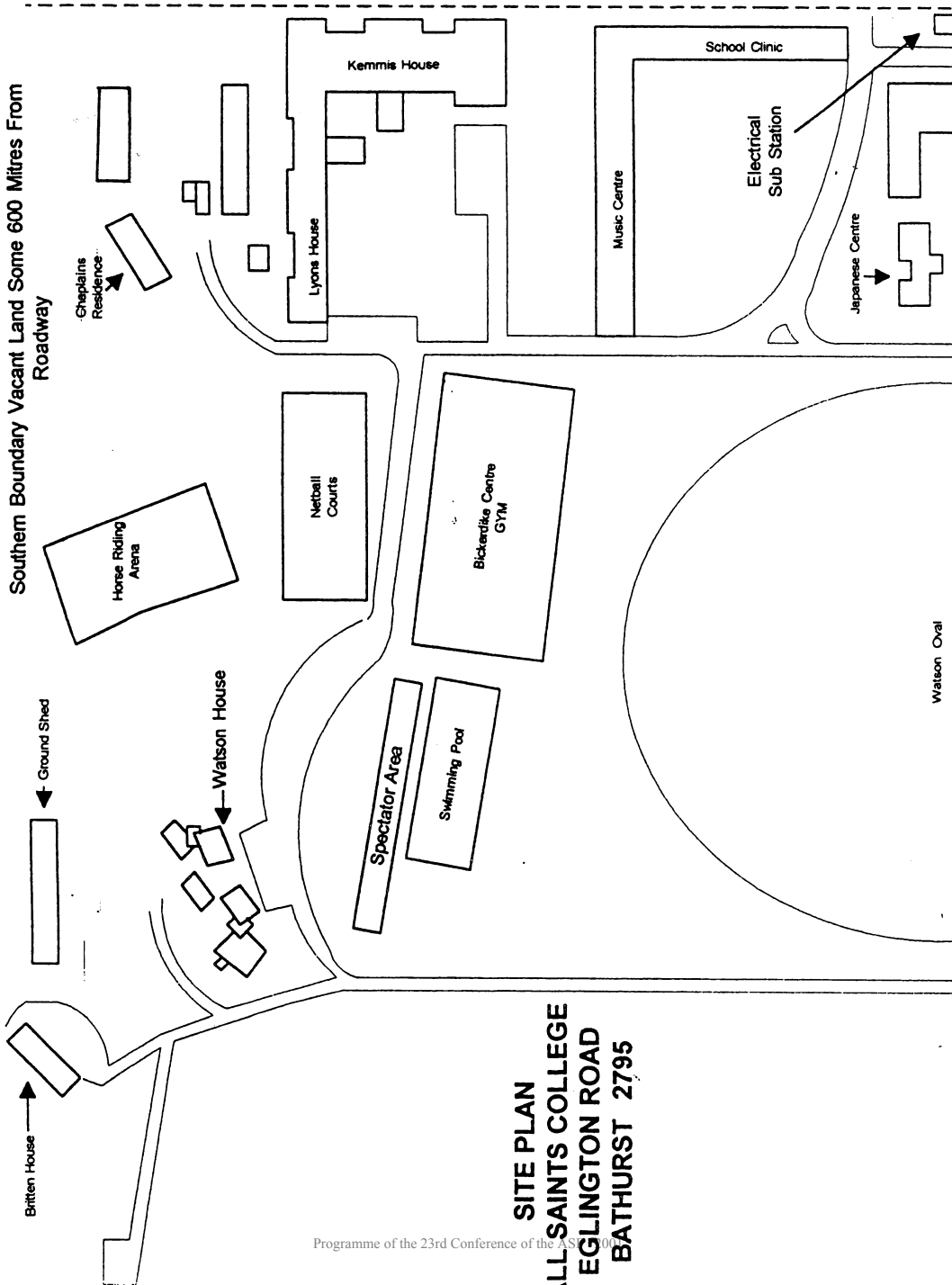
Julia James and Annalisa Dixon

[WHY-FOR]

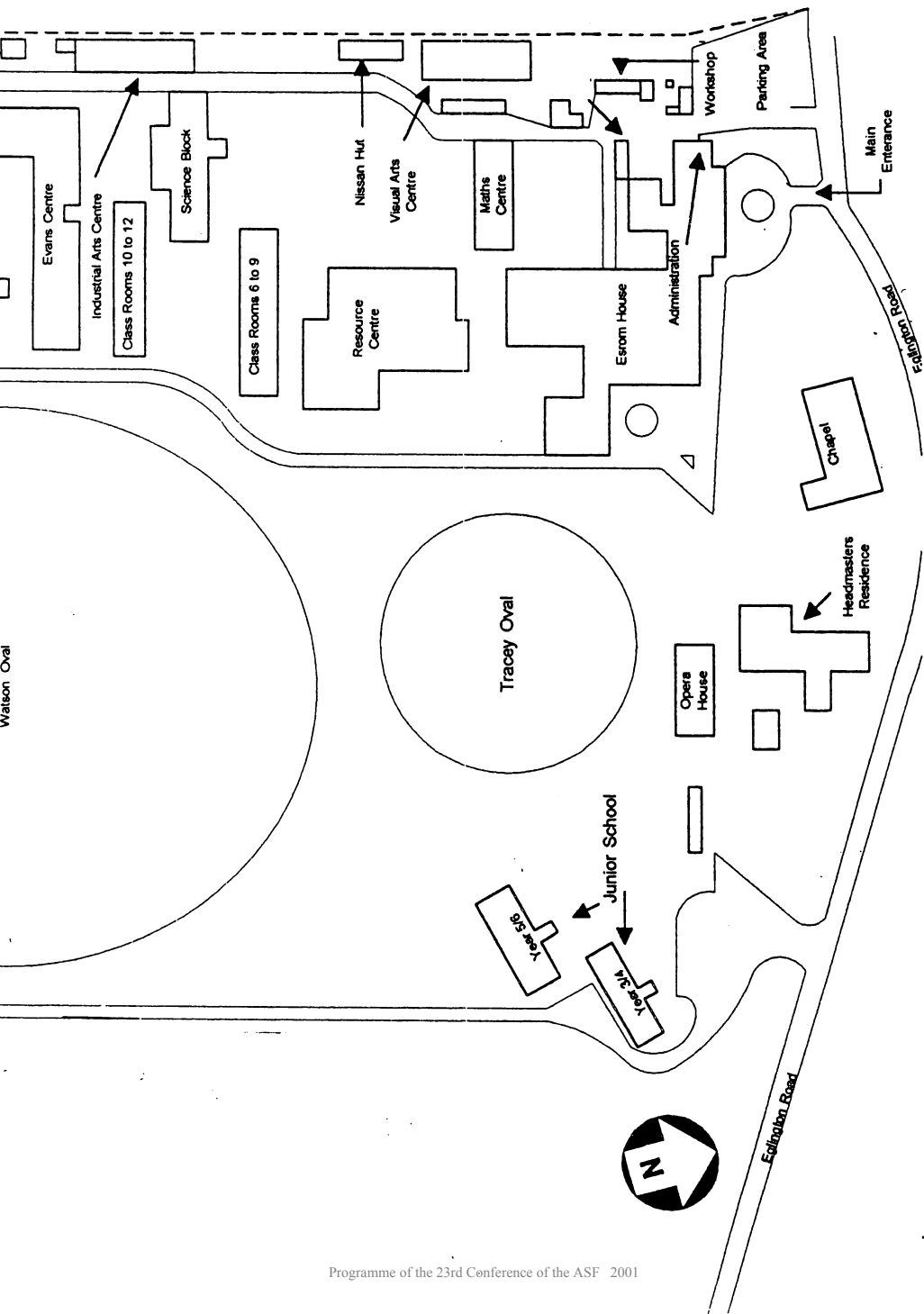
Cave Rafts

Julia James and Annalisa Dixon

Southern Boundary Vacant Land Some 600 Metres From Roadway



SITE PLAN
ALL SAINTS COLLEGE
EGLINGTON ROAD
BATHURST 2795



[WHY-FOR]

Ribbon Helicites: A New Category?

poster by Jill Rowling in the Tantaroola Room at 3:30

This poster was shown at the IUS 1997 Congress in Switzerland, and is presented here at the ASF conference for people who have not seen it before.

The original abstract is as follows:

"An interesting form of helictite has been found at Jenolan Caves. Ribbon helictites are characterised by their flat, thin, ribbon-like appearance together with an opaque white central canal (diameter around 0.2 mm). Cleavage planes and crystal orientation have been examined and growth mechanisms suggested. Laser Raman spectroscopy showed the material to be calcite. Ribbon helictites are associated with areas of cave fill which has reacted chemically with the limestone. The speleothem may be a previously undescribed variety of helictite."

After the poster was produced, further work on the subject revealed that the calcite appeared to be needle form calcite, which is often associated with biological activity.

[MANAGEMENT]

Selection of a Cave for Wild Adventure Tours

workshop chaired by Nick White in the Carpentaria Room at 4:00

[WHY-FOR]

Aragonite in NSW Caves

by Jill Rowling in the Tantaroola Room at 4:00

A part-time MSc. Project at the University of Sydney, Geosciences Department.

Supervisors: Tom Hubble and Dr Armstrong Osborne.

This project was started in July 1999.

The aims of this project are to:

- Investigate caves reported to contain aragonite
- Verify that the material either is or is not aragonite
- Analyse the substrate on which the aragonite is depositing
- Determine what factors lead to the deposition of aragonite in NSW caves.

There is surprisingly little scientific literature regarding its occurrence in NSW caves.

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There are a number of chemical and physical factors which affect the stability of aragonite in the cave environment. Aragonite is unstable in the freshwater environment, so deposition of aragonite in the spelean environment is unexpected, however it has been reported from a number of NSW cave areas. Aragonite can deposit at the expense of calcite when a calcite inhibitor is present.

The methodology being used to investigate aragonite is as follows:

- Literature search
- Visit cave areas and select suitable field sites
- Obtain samples at field study sites
- Analyse samples
- Determine what factors lead to the deposition of aragonite in NSW caves.

[WHY-FOR]

Cataloguing Helictites & Other Capillary-Controlled Speleothems

by Jill Rowling in the Tantanoola Room at 4:30

In the 2nd Edition of Hill & Forti's book, "Cave Minerals of the World", helictites are described with three subtypes. Other capillary controlled speleothems described by Hill and Forti are Cave Shields and Welts.

Jill would like to add some other capillary controlled speleothems to the list, and sub-divide the speleothem type "helictite" into further sub-types.

The reason why is because there are several sub-types which can be recognised around the world as being of the same form, however there is no specific name given to them.

Possibly this consistency of form is due to a common chemical or biological influence, and cataloguing the forms is the first step in understanding what causes them.

Forms include ribbon helictites, orange peels, saws, rods, butterflies and "hands". Influences include multiple canals, gravitation, possible chemical changes, and crystal twinning.

Materials include calcite needle-form calcite and aragonite. Vaterite is touched-on however it generally occurs as the result of human intervention (pollution).

[CREATIVE CAVING]

Art Techniques

by June MacLucas in the Baal Room at 7:00 p.m.

[HOW-TO]

Prussik Challenge

Gary Whitby in the Abracurrie Room at 7:30 p.m.

[HOW-TO]

Maps of Australian Caves and Karst

presentation & workshop by John Dunkley in the Wollondilly Room at 8:30 p.m.

How much does it cost to produce a cave map? What is its value? Who owns copyright in a map? What steps should individuals and clubs take to protect their intellectual property rights in maps, survey data and the like? Some examples will be given of cases where the actual labour involved could be quantified fairly accurately, and the question raised of whether both speleologists and management authorities have tended to grossly underestimate the notional value of cave maps. The talk will be preceded by a brief outline of how cave maps have evolved in Australia since the first recorded in 1827. The published version of this presentation will be more comprehensive and is based on an invited lecture given to the Australian Map Circle.

Sunday, 31st December 2000

[HISTORY]

Historical Tour to Jenolan Caves

lead by John Dunkley to Jenolan from 8:00 to 10:30 a.m.

A separate brochure will be distributed to participants on this circuitous trip to Jenolan via O'Connell, Tarana, Oberon, Fish River and Five Mile Hill, focussing on how travellers reached Jenolan in the 19th century, and touching on various legends and social history.

Bookings are essential as there is a maximum of 15 participants. Don't forget to tip the guide!

[WHY-FOR]

Geology Walk Through McKeown's Valley

lead by Anna Binnie at Jenolan from 9:30 to 12:30

Imperial Cave Tour

at Jenolan from 9:45 to 10:45 and 2:30 to 3:30

[WHY-FOR]

Mineralogical Tour of Chifley Cave

at Jenolan from 9:30 to 10:30 and 2:30 to 3:30

Far from a tour of "dead and dessicated" speleothems as some person inelegantly described it, the Chifley Cave offers an interesting and rather different selection of moonmilk-coated speleothems compared with other Jenolan Caves tours. Look at the dark coralloids where air moves between Imperial and Chifley Caves. Niches show cauliflower-like efflorescences. A small deposit of "potatoes" indicates where acids from an ancient bat guano pile have reacted with the bedrock producing a different kind of speleothem that has some of the characteristics of soils. Moonmilk-coated speleothems are mostly actively depositing. This is the cave where Iain McCulloch's "Fluffy Stuffite" is still being deposited. See the helictite complexity of Trickett's Mystery. Wonder about the rather large calcite crystal deposits just before exiting to the Grand Arch.

[WHY-FOR]

Orient Cave Mineralogical / Speleothem Tour

lead by Jill Rowling at Jenolan from 9:30 to 10:30

More helictites and things with capillary controlled growth. See large calcite blades on the sides of large stalagmites in Commonwealth Chamber. Think about the domed roof: Does it have a hydrothermal origin? A little bit of Lechuguilla - only at Jenolan. Places you don't expect aragonite. Acid holes and drip cones. Recrystallised calcite speleothems and a large heligmite? Rods, wings, hands and other bizarre shapes. Medusa's heads.

Bookings are essential as there is a maximum of 15 participants.

[HISTORY]

Elder Cave Tour

at Jenolan from 10:45 to 12:15 following the Imperial Cave Tour at 9:45

An extension to the end of the Imperial Tour. This tour gives an opportunity to view one of the first caves entered at Jenolan and see the way that tourists used to get into the Imperial Cave. There are many signatures dating from the early periods of visitation which allow the participants to get a practical feel for the signature projects discussed during the Conference. Have a go at recording historical signatures!

This tour involves somewhat more exertion than the normal tourist routes.

Temple of Baal Tour

at Jenolan from 11:00 to 12:30 and 1:00 to 2:30 on Sunday 31st December

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[CREATIVE CAVING]

Speleo Art Workshop

with June MacLucas from 11:00 to 12:30 in the Devil's Coach House at Jenolan

Try your hand at sketching with charcoal under the tuition of a professional artist.

Lucas Cave Tour

at Jenolan from 11:15 to 12:45 and 1:00 to 2:30 on Sunday 31st December

[WHY-FOR]

Jubilee Cave Mineralogical / Speleothems Tour

lead by Jill Rowling at Jenolan at 1:00

Jubilee Cave is the type locality for Ribbon Helictites. We will be seeing these, many other speleothem types and discuss some of the reasons behind smooth versus microgour flowstone; teeth on shawls; gour pools; triangular calcite flowstone. Colonies of micro-organisms or mineral deposits?

This tour involves a bit of bending in low passages. Bookings are essential as there is a maximum of 15 participants.

[EXPLORATION]

Cave Exploration in Western Guangxi Province, SW China

slide show by Arthur Clarke in the Baal Room at 7:00 p.m.

[ASF]

Launching the ASF's Website

by Mike Lake and Jill Rowling in the Punchbowl Room at 10:30 p.m.

The ASF now has a Web presence all its own at <http://www.caves.org.au>. This is in keeping with the domain names chosen by the National Speleological Society of USA (NSS) at <http://www.caves.org> and the British Cave Research Association (BCRA) at <http://www.caves.org.uk>.

The Web pages have been developed by Carol Layton.

The ASF site is hosted at YourWeb (<http://www.yourweb.com.au>), a Sydney company, at reasonable commercial rates. The company was chosen out of several contenders, and the decision was based on cost, services offered, ability to do the job, speed of delivery of Web pages and reliability as well as data backup and security.

It is intended to make this a joyous occasion so we chose to make the formal announcement on New Year's Eve at the party.

2001: a cave odyssey programme

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Monday, 1st January 2001

Happy New Millennium!!

[HISTORY]

Who Was Edie Smith?

by Norm Poulter & Dr. Albert Goede in the Baal Room at 9:00

In August 1967, Edith Smith died. A short time later, an ASF resolution established the "Edie Smith Award" in order to:

1. Perpetuate the memory of Edie Smith.
2. Give recognition to those who have made an outstanding contribution to Australian speleology.

The Award is now considered to be one of the most prestigious in Australian speleology.

But who was Edie Smith? There are very few cavers remaining in caving clubs who either knew her or knew of her. This biography attempts to shed some insight into the life and times of Edie Smith.

[HOW-TO]

Scientific Publishing: Where Do Cavers Fit?

Sue White in the Baal Room at 9:00 on Monday 1st January

As a heterogeneous group of people who are interested in caves and karst, cavers often want to publish material. The range of publication available include local caving magazines and newsletters, specialist speleological publications and scientific journals. This discussion will explore the main types of such publications and discuss their respective roles and requirements in the Australian context.

[ASF]

On the National Cave Rescue Commission

by Grace Matts in the Xanadu Room at 9:30 on Monday 1st January

[HOW-TO]

NSW Geographic Information System (GIS) Karst Database

seminar by Peter Dykes in the Wyanbene Room

[HISTORY]

An Evolution Of Club Caving

by Evalt Crabb in the Carpentaria Room at 10:00 on Monday 1st January

The paper "Sport and Scout Caving - the Present Dilemma" (1987) traced development of caving clubs and changes in caving practice. This subject is re-visited, examining the downturn in caving activity, with only the slightest optimism for the future.

[MANAGEMENT]

The Nullarbor - Fuel Stove Only?

by Norman Poulter OAM in the Xanadu Room at 11:00 on Monday 1st January

Over the last 30 years, visitation to the Nullarbor Plain, particularly the Western Australian sector has been steadily increasing.

Quite apart from the stress this places on certain cave environments due to intense activities within those caves [eg. Mullamullang, Thampanna], the surface environment can also be stressed through degradation of ground cover and habitat destruction by consumption of timber for campfires. This could have a direct/indirect effect on caves and all levels of cave fauna.

As environmentally sensitive cavers - should we be questioning our camping practises and instigate a ban on campfires when visiting the region?

[ASF]

Karst Index Database

workshop chaired by Mike Lake & Jill Rowling in the Caverns Measureless
at 11:00 on Monday 1st January

[HISTORY]

Explorers, Surveyors & Missionaries: Early Records Of Cave Visits In The NSW Central West

by John Dunkley in the Wollondilly Room at 11:00 on Monday 1st January

The NSW Central West was the site of several Australian 'firsts': first recorded limestone, first cave visit, first cave illustration, first scientific work, first limestone quarry and probably only the second cave map. Because the early years of white settlement in Sydney were plagued by a lack of lime for building, early explorers and government surveyors meticulously recorded limestone and caves: Evans, Lawson, Oxley, Sturt, Hume and especially Sir Thomas Mitchell. Less well known are similar visits recorded by assistant surveyors, missionaries and travellers.

[HISTORY]

Survey of Graffiti in Cliefden Caves

by Ian Curtis in the Carpentaria Room at 11:00

'The limestone, which is the first that has hitherto been discovered in Australia, abounds in the valley where we halted.' (Evans 1815)

'At 80 feet is a stalagmite, white, but somewhat earthy, about 13 feet high... the floors are clayey; visitors' hands become dirty, and many of the formations have been soiled from this cause.' (Trickett 1908)

Lot's Wife and Cliefden mud: for many the essence of Cliefden. The early story of Cliefden encompasses the stories of 'the two Miss Hosies', the Rotheries and the Ritmeesters. In more recent times the caves reveal the ubiquitous Selwoods. What written histories tell us about the caves we can only confirm through the graffiti that visitors to our caves have left.

Between 1995 and 1997 the Orange Speleological Association (OSS) undertook a comprehensive graffiti survey of the Cliefden Caves. Many hundreds of names and comments were collected, beginning with A. Norwood, 1856, (Gable), J. Hosie, 1863, (Gable), and C. Ritmeester, 1887, (Main). From these data conclusions may be drawn about cave entry and cave visitors. The graffiti record confirms the important role local women and children have played in local cave exploration and visitation.

The turn of the century appears to have been the 'golden age of caving', though the caves were visited regularly during the Depression and both World Wars. Graffiti tapers off in the 1950's, probably mirroring the custodianship of the caves by OSS, though certainly reflecting the growth of specialised speleological societies, trained to leave nothing. Cliefden graffiti is an enlightening snapshot of a previous age in cave exploration .

[HOW-TO]

Survey Challenge

convened by Ken Grimes on the Tracey Oval from 1:30 until 4:30

[HOW-TO]

SpeleoSports

convened by Mark Westhorp on the Tracey Oval from 1:30 until 6:00

[WHY-FOR]

Sharing Information on Speleothems & Cave Minerals

workshop chaired by Jill Rowling in the Tantanoola Room at 4:00

Since the publication of the second edition of "Cave Minerals of the World" by Hill and Forti, there are some matters still outstanding in the field of cave mineralogy, such as:

- Availability of a publically-accessible list (database?) of cave mineral samples, showing who holds the sample and where the sample was taken from.
- Records of publications on cave minerals since 1997.
- Records of type localities of speleothem and mineral types and subtypes.
- Naming conventions for new speleothem types and subtypes.

It is proposed that such a catalogue be set up. Initially, the work would be based on Australia but it is proposed to include other countries.

The aim of the workshop is to gauge feelings amongst the speleological community as to the potential benefits (or otherwise) of such a public database, the types of users, and some of the field definitions.

It is envisaged that the work will follow many of the ideas initiated by the UIS Informatics Commission. It would use the classification scheme for speleothems which Hill and Forti use. Field definitions would follow UIS guidelines.

The idea is to help prevent duplication of work on scarce resources, as well as improve the sharing of information where possible.

The results of this workshop will be forwarded to members of the UIS Mineralogy and Informatics Commissions.

[HOW-TO]

Mapping Tips

by Ken Grimes in the Caverns Measureless at 4:30

A wrap-up to the Survey Challenge with discussion on sketching being the most important part of cave mapping.

[EXPLORATION]

Thai Karst

slide show by Terry Bolger in the Baal Room at 7:00 p.m.

[CREATIVE CAVING]
Photography Competition Division 5 Judging
followed by
Slide Show of Other Divisions and Conference Pictures
convened by Angus Macoun in the Baal Room at 8:00 p.m.

[CREATIVE CAVING]
Digital Imaging
seminar by Angus Macoun in the Baal Room at 9:00 p.m.

A practical introduction to the world of digital imaging, including image capture from a digital camera as well as slide and flatbed scanners. Learn about some of the capabilities of Adobe Photoshop and how to use some of them to enhance an image, retouch it and manipulate it digitally. Through a joint effort, we will create a page for "Australian Caver".

Tuesday, 2nd January 2001

[ASF]
ASF Council Meeting
chaired by Peter Berrill in the Library
from 9:00 until 5:00

Caving at Borenore
lead by Mia Thurgate from 9:00 until 5:00

Speleo Brazil 2001
by Julia James in the Punchbowl Room at 6:00
Some information about the 13th International Congress of Speleology being held in Brasilia in July 2001.

Cavers' Dinner

Evalt Crabb in the Punchbowl Room at 7:00 on Tuesday 2nd January

The wrap-up dinner for the Conference with fine food, wine, company and entertainment. The Cavers' Dinner is a more formal affair than the rest of the Conference so please dress appropriately.

The evening includes the presentation of prizes for the Prussik Challenge, SpeleoSports, Survey Challenge and Photography Competition. Division 6 of the photography competition is Humour and the slides for this will be shown and judged by the audience. The Federation's biennial Awards will be presented by the ASF President.

Our guest speaker is Alan Warild who will be sharing some of his adventures with us and speaking about the intrinsic value of exploration.

Socialising will continue on afterwards so don't plan on going to bed early.

Non-Caving Activities

There is a wide range of activities available for partners, children and those who want a break from the caving programme.

There are many places to visit around Bathurst and the surrounding region such as historic villages and houses, gardens, the Bathurst Agrodome, wineries, mohair stud, the Age of Fishes Museum, Stuart Town arboretum, Cowra Japanese garden, Mount Panorama, Bathurst Observatory, cinema or you can try gold-panning at Bathurst Goldfields or Hill End or take in a balloon flight.

We have discounts at the Bathurst Observatory and Metro 5 Cinema. Please book through the Conference Office to obtain the discounts. The Observatory is open at 9:30 for groups up to 30 people.

All Saints' College has many facilities which we are able to use such as sporting ovals, gymnasium with basketball courts and gym mats, swimming pool, beach volleyball court, children's play equipment, tennis courts, pool table, televisions and VCR's, computers, library, art room and chapel as well as the use of various sports equipment.

There is a minibus to take people to off-site activities. Please consult Joan Crabb concerning information and options for off-site activities. Please consult Ian and Anna Binnie concerning on-site activities.

Field Trips

There are three field trips during the Conference. Lunch as well as Morning and Afternoon Teas will be supplied on these trips.

The official Conference Opening will be held at Abercrombie caves on Friday, 29th December, followed by visits to the show caves.

A full day will be spent at Jenolan Caves on Sunday, 31st December with numerous toursit cave visits. On this day, breakfast will be at 7:00 a.m. instead of 8:00 a.m. on the other days. The bus will be leaving at 8:00 a.m. so that we can be at Jenolan nice and early.

For those not involved in the ASF Council Meeting on Tuesday, 2nd January, there is a trip to Borenore Caves. This trip includes enjoying the pleasant surrounds at Borenore Caves as well as wild caving.

Post Conference Trips

Post-Conference trips will be taking place for interested cavers from Wednesday the 3rd to Sunday the 7th of January 2001. Please note that carbide lamps are not permitted in any of these systems.

Slaven's Cave

3rd January (Ernst Holland)

A non-limestone cave to visit on the way to everywhere else. Trip yet to be confirmed.

Cliefden

3rd and 4th January (OSS)

Mostly horizontal caving. Bunks available for up to 12 people on site with good facilities. Located about 75km SW of Bathurst. Trip length up to 5 hours.

Colong

3rd to 5th January (Peter Dykes)

Camping at Batsh Camp (no facilities) with a trip limit of 8 participants. Note a strenuous bushwalk is required to get to the cave (camping overnight near cave entrance). Around 110km SE from Bathurst in Kanagra Boyd National Park, 2WD vehicle accessible. Trip duration is 6-8 hours.

Wombeyan

3rd to 5th January (Cave Rescue)

Cave Rescue exercises. Some bunk style accommodation is available (16 beds). Bring your own food, caving gear, and bedding. Located roughly 160km SSE of Bathurst.

Tuglow

6th and 7th January (Peter Dykes)

Limit of 8 on permit. Camping available nearby. A sporting cave, Tuglow involves vertical caving to enter and exit the system before exploring horizontally. It is a very sporting, challenging cave. It is located approximately 100km SE of Bathurst in Kanagra Boyd National Park (4WD required for last few kilometres). Expect to be underground for at least 6 hours.

Jenolan

3rd to 7th January (RSS, NHVSS, UNSWSS)

Limited accommodation is available with kitchen, bathroom and bunks or mattresses. A range of caves will be visited depending on participants' ability.

Canyoning in the Blue Mountains

4th January (Angus Macoun)

Try open-cut caving! Canyons in the Blue Mountains are beautiful with sculpted walls of deep slots, light filtered by ferns and moss and interesting wildlife. Getting through them requires bush-bashing, swimming, jumping and abseiling with very cold water. This is usually a whole-day activity.

Wyanbene

4th and 5th January (ISS)

Caving in a wet caving environment. Self contained camping in Deua National Park. Horizontal caving in a cold, wet environment. Also nearby are the Marble Arch caves and the Big Hole. Around 305km drive (some unsealed roads) south of Bathurst. Expected duration underground 6-10 hours depending on how far you get.

Yarrangobilly

4th to 10th January (ISS)

Self contained camping in Cotterill's Cottage. Location offers tourist caves as well as wild caving including Eagles Nest & East Deep Creek (not suitable for novice cavers). Trip duration up to 8 hours in very cold and damp conditions.

Cooleman Plain

12 and 13th January (CSS)

Self contained camping in northern Kosciuszko National Park. Expected duration of trips is 2-3 hours.

2001: a cave odyssey

Conference Committee

The people involved in bringing you this Conference were:

Angus Macoun, RSS
Jodie Rutledge, NHVSS
Jill Rowling, SUSS
Jenny Whitby, NHVSS
Walter Waener, ISS
Gary Whitby, NHVSS
Evalt Crabb, HCG
Cathy Brown, CSS
Michael Rutledge, NHVSS
Joe Sydney, HCG
Andy Lawrence, MSS
Joan Crabb, HCG
John Dunkley, CSS
Mark Westthorp, CTCC
Ian Binnie, MUCG
Anna Binnie, MUCG
Jason Goldstein, RSS
Chris Norton, SUSS

and all of the presenters and trip leaders

with assistance from:

Frank Colzato, photographer
Trevor Ethell, Shutter Bugs
Lyle Lynch, Fletchers Photographics
Alan McRae, Eastmon Camera house
Ted Reedy, JCRT
Ernst Holland, JCRT
Mia Thurgate, JCRT
Steve Reilly, JCRT
June MacLucas, CEGSA
Malcolm Griggs, All Saints' College
David Bragg, All Saints' College
Garry Smith, NHVSS
Peter Dykes, CWCG
Bruce Howlett, OSS
Darryl McDowell, RSS

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Kayell
Pigments and Palettes