

LIMESTONE COAST 2004 WORKSHOP

- Kent Henderson

Steve Bourne presents the Bat Teleview Centre to attendees – Limestone Coast Workshop 2004



Naracoorte Caves in South Australia recently hosted the final Closing Workshop meeting of IGCP (International Geoscience Program) 448 – Global Karst Correlation, together with the First International Workshop on Ramsar Subterranean Wetlands, from 10 – 19 October.

IGCP (project No.) 448 (World Correlation on Karst Geology and its Relevant Ecosystems) was approved by the UNESCO/IGCP Scientific Board at its 28th meeting, held in early February 2000 in Paris. The Project was accepted for implementation from 2000 to 2004, under the chairmanship of Prof. Yuan Daoxian, of the Institute of Karst Geology, Guilin, China. It was supported by all major international karst organizations, and many individual karst scientists around the world. Several intervening meeting were held in various countries, culminating in the final meeting of the project at Naracoorte. For details see: <http://www.karst.edu.cn/>.



Attendees at the karst pavements near Mt. Gambier – Limestone Coast Workshop 2004

Ramsar is the name of the international UNESCO-organised Convention signed by many nations to protect the world's wetlands (named after Ramsar in Iran, where the treaty was promulgated in 1971). There are presently 141 contracting parties to the Convention, with 1387 wetland sites, totalling 122.7 million hectares, designated for

inclusion in the Ramsar List of Wetlands of International Importance. The Naracoorte meeting was the first to focus specifically on subterranean wetlands. See: <http://www.ramsar.org/>.

The instigator for the combined workshop was Elery Hamilton-Smith, and he was supported by a Workshop Committee comprised of Steve Bourne, Andy Spate, Mia Thurgate, Ken Grimes, Nicholas and Susan White, and Armstrong Osborne, with myself as Workshop Secretary. As would be expected, a number of organisational meetings we held prior to the event!

It all came together very well in the end, not without (as if often the case) considerable heartburn en route. Fifty attendees registered. Many were Australians, but we were delighted to welcome a substantial number from Europe and Asia, especially from China.

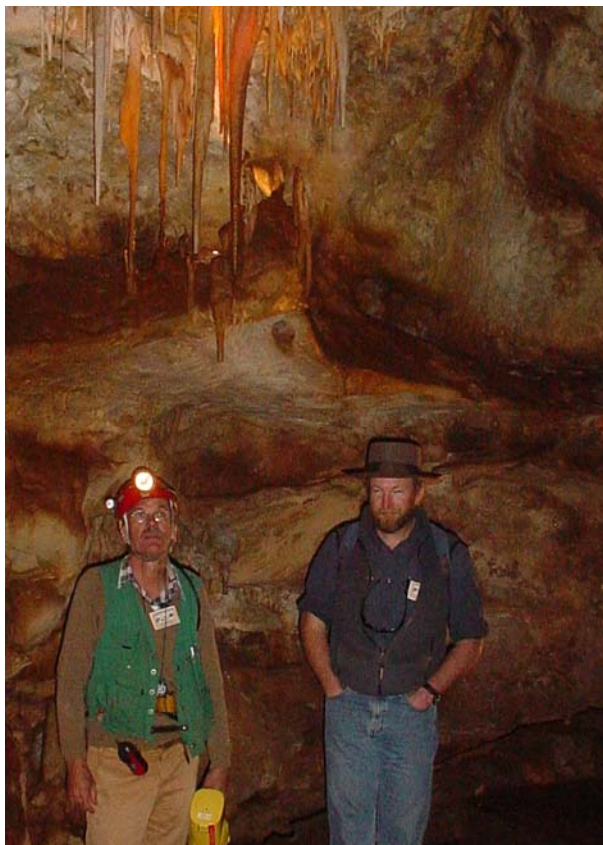
Day 1- Monday 11 October. After arriving the previous day and attending a most pleasant welcoming cocktail party at the Russet Ridge Winery adjacent to Naracoorte Caves, attendees assembled at the Naracoorte Town Hall (our Workshop venue) for the first session, focusing on 'The Evolution of a World Heritage Area'. After Opening Remarks from Steve Bourne, we were favoured by four papers, starting with Ken Grimes (presenter) and Susan White presenting *The Geological Development of Naracoorte Caves*. I had heard similar presentations from Ken before, and this was of the expected high standard!

Liz Reed followed with a fascinating presentation entitled *The Story which the Fossils tells us* – an wonderful overview of palaeontological research at Naracoorte. Tim Moulds continued with *The Guanophilic Arthropods of Bat Cave, Naracoorte: an Isolated Community?* – dealing with his PhD research. It was extremely well presented, and intensely interesting. The final offering for the session came from Professor Elery Hamilton-Smith, who dilated on the subject *Why World Heritage?* He readily answered the question, expansively, to the satisfaction of all!



Attendees in Victoria Fossil Cave – Limestone Coast Workshop 2004

Ken Grimes (left) and Ian Household in Tantanoola Cave – Limestone Coast Workshop 2004



The Second Session, starting late morning and continuing into the afternoon, focused on 'The Gambier Karst Region'. The first offering was from John Webb (presenter) and Susan White dealing with *Karst Development at Naracoorte: When? Why? How?* – an excellent geologic treatise on the area. The second paper came from Ian Lewis, Ruth Lawrence and Kevin Mott (presented by Ian) entitled *Origins of the East Naracoorte Range Cave Systems – A New Examination of Structural Influences*. In my opinion, it was one of the best papers presented at the Workshop. Ian addressed the issue of why the major caves on the Naracoorte Ridge are basically located in a straight line and at pretty much equidistant intervals. He proposed an extensive new theory – which even made sense to me!



A Panel discussion in progress
– Limestone Coast Workshop 2004

After lunch, and a poster viewing, the Second Session continued with Ken Grimes providing A *Review of Syngenetic Karst in Australia* – again, excellent stuff, followed by John Webb (presenter) and Stan Lithco enlightening us with *Controls on the Water Chemistry of Cenote Lakes in South Eastern Australia* – a relatively technical paper, but interesting nonetheless. The session was rounded off by a discussion on issues of 'Landscape Evolution in the Naracoorte and Western Otway Basin Area'.

In the late afternoon, it was off to Naracoorte Caves for tours through Victoria Fossil Cave (including a viewing up the main Fossil Bed) which excited the interest, and favourable comment, of all present.



Attendees examining a quarry face in Henschke's Quarry – Limestone Coast Workshop 2004

Day 2 – Tuesday 12 October. The second day of the Workshop saw us back at the Naracoorte Town Hall for the Third Session – 'Cave and Karst Features and Characteristics', which mostly featured papers from overseas attendees. The opening paper, *High Resolution Paleoclimate environment records from a Stalagmite of Dongge Cave since 15000 years in Libo, Guizhou*, came from Zhang Meiling et al – again, quite technical in nature, but well presented and illustrated. Our Slovenian attendee, Andrej Kranjc, then presented *Periodical Karst Lake of Cerknica (Cerkljansko Jezero) – 2000 Years of Man versus Nature*. It was a fascinating presentation of how, since Roman times, many efforts have been made (always without success, of course!) in dam this polje, and otherwise modify it.

The third offering of this session came from Zhang Cheng et al, entitled an *Analysis of the Short-term Scale Variation of a Typical Epikarst Spring in Southwest China*. Finally, Liz Reed produced an intensely interesting paper entitled *Sedimentary and Infill History of the Victoria Fossil Cave*.

After morning tea, the Fourth Session of the Workshop – 'Karst Correlations and Comparisons' – commenced with Dr. Armstrong Osborne's paper: *Karst Correlation and Gondwana/Laurasia Comparisons*. It was a fascinating survey indeed. He was followed by Professor Yuan Daoxian presenting *Karst Ecosystem Types*, in which he noted that karst ecosystems in different parts of the world are quite distant, and that for a their proper understanding and management, it is necessary to distinguish these different types and

their characteristics. An excellent, extremely well presented paper. After lunch, Elery Hamilton-Smith gave us the final formal offering of the IGCP part of the Workshop: *Is it Feasible to Develop a Representative sample of World Karst Areas?* An excellent presentation, as expected, but clearly the question is still open.



Attendees relaxing over lunch at the Goulden's Hole cenote – Limestone Coast Workshop 2004

Elery's paper was followed by the Closing Session of IGCP 448, a discussion on several related topics – Where do we go from here? What potential is there for geological correlation in Cainozoic Karst? What other projects are envisaged for the IGCP? There was a great deal of input into the discussion, which will undoubtedly bear fruit in due course. After afternoon tea, attendees were bussed off to tour of the local Henschke's Limestone Quarry, Blanche Cave, and participate in a session in the Bat Cave Teleview Centre – all

of which created considerable favourable comment from our overseas attendees, in particular.

Day 3 – Wednesday 13 October. This day saw a full-day field trip to various sites in the lower south east, including Town Cave in the middle of Mt. Gambier, the karst pavements and cenotes out of Mt. Gambier, Ewen's ponds, and returning to Naracoorte with stops at Mt. Burr Cave and Gran Gran Cave – the latter being an important aboriginal site.

Days 4-6: Thursday 14 October to Saturday 16 October. As I was personally tied up with business appointments for most of these three days, I missed almost all of the sessions of the Ramsar Program, but I understand it went swimmingly (pun intended, of course!). I did get to the Workshop Dinner at the Naracoorte Hotel on the Thursday night, which was very convivial, to say the least! The program over the three days consisted of a field trip, plus a dozen papers, almost all relating to karst groundwater ecosystems in Australia, but with a few focused overseas.

Many of the abstracts from the Workshop, and perhaps some of the full papers, will (in due course) be published in *Helictite*. It only remains to thanks Steve Bourne (in particular for his superb local organisation) and all those many who contributed in ways large and small, from organising committee members, to the bus drivers, lunch preparers, and hosts at various venues – an extensive list too long to relay here. They have all been individually thanked. All in all, it was a tremendous week, and did much to showcase Australian hospitality in general, and the Limestone Coast karsts in particular, to many colleagues from around the world.



Professor Elery Hamilton-Smith presenting a framed photograph to Prof.essor Yuan Daoxian, of China – Limestone Coast Workshop 2004. Photo: Steve Bourne