

## LIMESTONE QUARRIES AND LIMESTONE VALUES

- Andy Spate

This is going to be a somewhat different ANDYSEZ. I am going to talk about an important workshop that I have been involved with over the last three days.

Elery Hamilton-Smith has been working with the World Bank and the International Union for the Conservation of Nature (IUCN) for a number of years. Some of this work has been developing environmental guidelines for limestone quarrying in Asia.

Noting the fact that the Australian Banana Republic could well benefit from some holistic land use and resource planning initiatives, Elery conceived the idea of getting karsty people together with limestone miners to establish common ground. As Australia is actually six states and several territories with less legislatively in common than some aspects of the European Economic Community this seemed to be a "courageous (in the "Yes, Minister" sense) act!

So, about twenty of us gathered at Charles Sturt University at Bathurst in early November 2000. Elery circulated a discussion paper that established the basis of the workshop as:

"Australia has experienced some 30 years of conflict [some might argue that conflict over Bungonia (South Marulan) goes back sixty years] over the extraction of limestone for cement and lime, for agricultural lime production and various other purposes. This has caused immense costs to both quarry owners and to conservationists; and often the conflict has not served either party, nor the environment, well.

This workshop will attempt to address these limestone resource management issues. Its aims are:

- To establish a better basis for communication and joint resource management planning between quarry operators and those interested in the conservation of limestone areas.
- To develop an agreed policy and practice document which will provide guidelines for the identification of appropriate sites for limestone extraction and the utilisation of the most effective and environmentally responsible quarrying practices."

Some might well argue that the above premises are loaded against limestone miners?

In any event we gathered at Charles Sturt University under the *aegis* of Elery and Dr Al Gibbs, Head of the Environmental Studies Unit at Charles Sturt University, to discuss the aims outlined above.

Another set of meetings, I said! Further sets of lunchtime sandwiches! Renewed attempts passing-off brown liquids as coffee! Motherhood statements to be generated? Well, it was all of this and more – much more.

It was great gathering. I renewed friendships with a number of limestone botherers, some geological bureaucrats, some karst "gods" and a variety of other people. The discussions were good and balanced with considerable acceptance of other's views.

Let's look at who was there. Their affiliations are as claimed by each individual!

Ken Grimes  
Glenn Porter  
Bill Marshall  
Lawrence Sherwin (part)  
Elery Hamilton-Smith  
Ernst Holland (part)  
Roger Mathews  
Tony Smurthwaite  
Kay Oxley (part)  
Al Gibbs  
Andy Spate  
Nigel Beeke  
Armstrong Osborne  
John Dunkley (part)  
Jamie Gibbins  
Stuart Ritchie  
Grant Gartrell

Regolith Mapping/ACKMA  
Carbonne Shire Council – Molong Limestone Quarry  
Blue Circle Southern Cement  
NSW Dept of Mineral Resources  
Rethink Consulting Pty Ltd/ACKMA  
retired (formerly Jenolan Caves Reserve Trust)/ACKMA  
SA Dept of Primary Industries and Resources  
Land Access Branch, WA Dept of Minerals and Energy  
NSW Dept of Mineral Resources  
Environmental Studies Unit, Charles Sturt University  
NSW National Parks and Wildlife Service/ACKMA  
David Mitchell Ltd (Tamworth)  
University of Sydney/ACKMA  
Australian Speleological Federation Inc.  
David Mitchell Ltd (Riverton)  
Queensland Cement Limited  
ACKMA

John Quirke  
Arthur Clarke  
Bruce Howlett (part)  
Mia Thurgate (part)  
Susan White

South Australia  
University of Tasmania/ACKMA/ASF  
Australian Speleological Federation Inc.  
Jenolan Caves Reserve Trust/ACKMA  
Earth Science Dept, Latrobe University/ACKMA/ASF

I have used a lot of space perhaps by giving this list in full. But it is important to recognise the breadth of involvement – and also to identify players who were not represented in any way – the various state planning departments spring speedily to mind. They were invited...

The workshop commenced with four papers and a MS-Powerpoint presentation. The latter was from the United States Geological Survey and outlined a “*Hierarchical systems analysis - one approach to issues in assessing karst areas*”. This was prepared by Dr William Langer of the USGS and was made available to this workshop and to the Charles Sturt University’s Karst Management Course that commences next year. We did not have the opportunity to explore this approach in any great detail but it does appear to be a useful methodology to provide warnings and checklists to the proponents of limestone mining.

The four papers addressed the non-commercial values of caves and karst (*A Personal Perspective* by Grant Gartrell and *The Scientific Perspective* by Armstrong Osborne) and industry perspectives (*The Approach of QCL – A Direction for the Future* by Stuart Ritchie and *Environmental Responsibility in a Small Operation* by Glenn Porter). The four presentations promoted much discussion – which seemed to weld together the idea that we all needed to work together.

The group then broke into two groups to explore Elery’s discussion paper. The intention was, and is, to develop the ideas generated by the World Bank team into a set of ideas, guidelines and recommendations suitable for Australian limestone users (cavers and industry alike) so that conflict is avoided and more sensible resource allocation and use is generated.

On Wednesday we took off to the bush and visited the Limekilns (aka Benglen) Caves area to the north of Bathurst – the site of the first hardrock limestone quarrying on the Australian mainland (and perhaps the first show cave?). Then on to Molong to look at

Glenn’s operation. This is a limestone quarry producing a variety of limestone products run by the Carbone Shire Council. It is almost in the township of Molong (the only town in NSW significantly on karst) with the nearest neighbours only a few hundred metres away. A very clean and quiet operation that keeps the municipal rates down! Much interesting karst and palaeokarst in the quarry. Then to Wellington Caves for a superb Dale and Janelle lunch (not sandwiches!). Mike Augée and Armstrong then provided some boffin-background and interest to reinforce karst values to our limestone mining colleagues as we inspected the Phosphate Mine, Cathedral Cave and some “surface” features. And the “sculpture”...

Thursday – back to workshopping for the morning – establishing the “triple bottom line plus one” (Western Australian Government speak... - sorry Tony!). The two groups further discussed the draft paper and hacked it about considerably. Elery and Stuart, with input from a few others, are going to further develop the paper for circulation throughout the caving, cave management and limestone using industry.

One of the biggest issues that must be resolved is that of information sharing. Miners want high quality limestone – and that is usually where the cave and karst values are concentrated. We are competing for the same resource. If we don’t share our hopes and aspirations and values we are doomed to expensive and – often unproductive – conflict. Miners must learn to share their ideas and values with cavers. And *vice versa* – caver’s values and knowledge can contribute to the knowledge base. Establishing mutual trust and respect is essential.

All-in-all I found it to be a most useful three days – and have high hopes that better dialogue between the two “sides” – I don’t really want to use that word – will help us better conserve Australia’s caves and karst – and to better sustain the limestone industry that we **ALL** utilise every minute of our days.