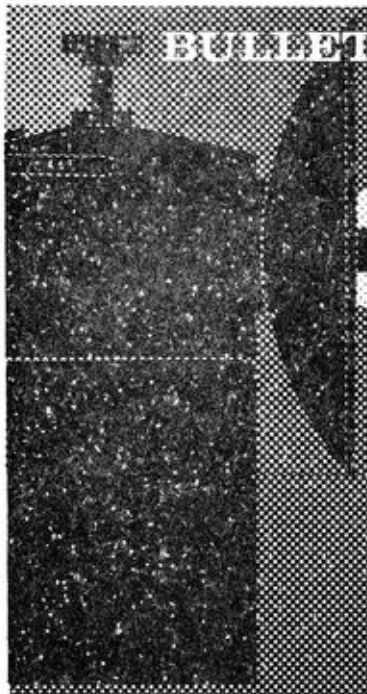
BULLETIN OF THE SYDNEY UNIVERSITY SPELEOLOGICAL SOCIETY

Lumen in Tenebris

SUSS



SUSS

FOUNDED 1948

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JUNE GENERAL MEETING

The June meeting of the Society will be held on Thursday, 6th June, 1974 in the Badham Room at 7.30pm.

.....Price 20¢(+ postage)
.....$2-50 per year.

LIST OF FUTURE TRIPS

MAY 11-12	COLONG	Bruce Welch	991013
	BUNGONIA	Tony Austin	Arrange at meeting.
	JENOLAN	John Dunkley (But contact Ludwig Rieder 4282034) Surveying in Lucas Cave and elsewhere. This trip may continue on to the Mon, Tue.	
MAY 18-19	WOMBEYAN	Dennis Ward	9092400
MAY SOMETIME	JENOLAN	Jim Seabrook Arrange at meeting. Wyburds Lake Cave.	
JUNE 1-2	BUNGONIA	Tony Austin	Arrange at meeting.

JUNE 6 General Meeting.

JUN SOMETIME	JENOLAN	Jim Seabrook. Arrange at meeting. Wyburds Lake Cave.	

JULY 4 General Meeting.

JULY 13-14	BUNGONIA	Rik Tunney.	Arrange at meeting or write.

JULY-AUGUST SOMETIME
BARBARA DEW MEMORIAL LECTURE
SUSS ANNUAL DINNER

NEW YEAR PERIOD
Tenth Biennial Convention of Australian Speleological Federation Brisbane and field trips slsewhere.

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Editorial.

Up to now the Bulletin has appeared in the middle of the month for which it is intended. All the copies have been posted to members and this cost has been responsible for a large proportion of the cost of the Bulletin. Recent postage increases have significantly increased this cost.

In order to make a saving on the cost of distributing the Bulletin the following arrangements are being made:

1. The Bulletin will now appear on the day of the General Meeting for the month for which it is intended.

2. The Bulletin will be handed out to those members attending the meeting. A list of these people will be maintained.

3. Those members who are prepared to act as a courier service and hand copies of the Bulletin to friends, those who live near them or work with them, will be given a copy of the Bulletin for this purpose. A list will be maintained.

4. The remaining members and subscribers will receive their copy of the Bulletin at some later stage in the month.

It is hoped that with 50 copies of the Bulletin being handed out at each meeting there will be a saving of up to 30% in postage costs. I am sure that all members of the society will support this scheme by attending meetings or arranging to have their Bulletin collected.

-Rik Tunney
Editor.

SUSS Editorial address- PO Box 176 Fairy Meadow 2519.

PRESIDENT'S REPORT - 1973/74.

-Ludwig Rieder.

It is a great pleasure to present the 26th President's Report to the society.

The Society has had a good year, especially so because it was its 25th year of continuous existance. This is a record, not only in the caving fraternity but also because we are a University Society which runs against the tendency to operate rather intermittently.

The Committee this year has been one of the best for many years due chiefly to the enthusiasm of the Secretary, Treasurer and others who gave their support when needed.

The Bulletin has, I am proud to say, also been something of a hallmark in SUSS history, being the largest volume ever produced - 146 pages.

Highlights of the year have been the SUSS Annual Dinner where we commemorated our 25th Anniversary and were entertained by Dr H.Wright, a former Suss member; a return to areas such as Bungonia Caves and Wombeyan Caves; the SUSS 25th anniversary birthday party; and the appearance of many new faces to provide the continuity that this society should value.

Trips have gone to Cooleman Plains, Jenolan Caves, Bungonia Caves and Wombeyan Caves where much valuable work including hydrology, geomorphology, surveying and further exploration were carried out. Other areas distant and near were also visited during the year including Tasmania, Texas, Colong, Tuglow and Cliefden.

Meetings during the year saw guest speakers in the form of Dr J.James, Mr W.Counsell and Mr A.Pavey. Films and slides were also presented at meetings.

All in all, I was proud to have been the Society's President and I believe that a fine base exists for continuity in the activities of the Society. I believe that 1974/75 will also be a good, if not better, year.

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TWIDDLY, TWIDDLEY or TWIDDLEE?

-Rik Tunney.

A recent article by P.B.Toomer traces the spelling of the word as in Twiddly-om-Pom. Apparently the first report of this extension to Mammoth Cave, Jenolan Caves misquoted an article published in CEGSA Newsletter and spurious spellings began to multiply.

The author even accuses SUSS of being a party to this terrible "krime". The evidence he has brought to bearhave shown us the error of our ways. Wee wont spel it rong no mor.

Twiddly-om-Pom it is.

REF: "Twiddly-om-Pom - A Confession." P.B.Toomer PSG Bull. 3(10):89 MAR74.

SECOND WOMAN JUSTICE
SMH Tuesday, April 9, 1974.

PAGE 1.

Miss Mary Genevieve Gaudron, 31, a Sydney barrister, has been appointed a Deputy President of the Australian Conciliation and Arbitration Commission.

Miss Gaudron, who is the youngest Deputy President appointed, is pictured at her Elizabeth Bay home.

She will be the ninth Deputy President of the commission, and will take up her appointment on Wednesday. She will be addressed as Justice Gaudron. Miss Gaudron is the second woman to be appointed. Miss Elizabeth Evatt was appointed early last year.

Miss Gaudron is married to Sydney businessman Mr B.J.Nurse. They have two daughters.

She represented the Federal Government in the re-opened 1973 equal pay case, and was one of the Government's counsell in the resumed hearing of the 1972-73 national wage case, and the 1974 national wage case.

Welcoming the appointment, the Minister for Labour, Mr Cameron, said in Canberra yesterday that decisions of the commission, on wage rates and allied questions, influenced most Australian families, and was not a matter for the exclusive concern of males.

Miss Gaudron was eminently qualified to contribute to the work of the commission, he said.

She graduated as a Bachelor of Arts at the University of Sydney in 1962, and as a Bachelor of Laws with first class honours in 1965. She was admitted to the NSW Bar in 1968.

PAGE 7 "The Law and the Laundry - Australia's Youngest Judge Has No Time for the Ironing." Lenore Nicklin.

Mary Gaudron was seven when she wandered down a street in Moree and saw an old man standing on the back of a blue Holden utility and addressing a group of people. He was telling them to vote no in a referendum to outlaw communism, and he was speaking at considerable length about something called the Constitution.

Mary Gaudron raised her hand, which she knew was the way to communicate with people, and said: "Please sir, what's a Constitution?." The man replied that it was the ten commandments of government. How could she get one? "You write to me at Parliament House, Canberra," he said.

Evatt's Reply

So she wrote to Dr H.V.Evatt for a Constitution, bragged about this at school, and waited hopefully for the tablets of stone to arrive in the mail. Eventually a little white book turned up. "That's no use to anyone," said her friends. "It's a lot of use to lawyers," she said. Face-saving furiously among the under-teens, she added: "And I'm going to be a lawyer."

Mary Gaudron did indeed become a lawyer. She is now 31, and yesterday

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"THREE EXPEDITIONS INTO THE INTERIOR OF EASTERN AUSTRALIA"

Major T.L.Mitchell

(From second edition London 1839 Chap 1 page 6-7. Volume II)
(The party has moved from Bathurst, intending to reach the Darling R.)

MARCH 18 - As it was necessary to grind some wheat with hand-mills, to make up our supply of flour, I was obliged to remain a day at Buree; and I, therefor, determined on a visit to the limestone caves, by no means the least remarkable feature in that country. The whole district consists of trap and limestone, the former appearing in ridges, which belong to the lofty mass of Canoblas. The limestone occurrs chiefly in the sides of vallies in different places, and contains probably many unexplored caves. The orifices are small fissures in the rock, and they have escaped the attention of the white people who have hitherto wandered there. I had long been anxious to extend my researches for fossil bones among these caves, having discovered, during a cursory visit to them some years before, that many interresting remains of the early races of animals in Australia, were to be found in the deep crevices and caverns of the limestone rock. How they got there was a question which had often puzzled me; but having at length arrived at some conclusions on the subject, I was now desirous to ascertain. by a more extensive examination of the limestone country, whether the caves containing the osseous breccia, presented here similar characteristics to those, I had observed in Wellington Valley.

The first limestone, we examined, had no crevices sufficiently large to admit our bodies; but, on riding five miles southward to Oakey creek, we found a low ridge extending some miles on its left bank, which promised many openings. We soon found one, which I considered to be of the right sort, viz. a perpendicular crevice with red tuff about the sides. Being provided with candles and ropes, we descended perpendicularly first, about six fathoms to one stage, then obliquely, about half as far to a sort of floor of red earth; Mr. Rankin, although a large man, always leading the way into the smallest openings. By these means, and by crawling through narrow crevices, we penetrated to several recesses, until Mr. Rankin found some masses of osseous breccia beneath the limestone rock, but so wedged in, that they could be extracted only by digging. Unlike the same red substance at Wellington Valley, where it was nearly as hard as the limestone, the red calcareous tuff found here was so loose, that the mass of bones was easily detached from it; but none of them were perfect, except one or two vertebrae of a very large species of kangaroo. Pursuing this lode of osseous earth, we traced it to several other recesses, and in the lower side of an indurated mass, (the upper place having been the floor of our first landing place,) we found two imperfect skulls of Dasyuri, the teeth being however very well preserved. This was, doubtless, an unvisited cave; for the natives have an instinctive or superstitious dread of all such places, and it is not, therefore probable, that man had ever before visited that cavern. With all our ropes it cost some of us trouble to get out of it, after passing two hours in candle-light. It may thus be imagined what a vast field for such interesting researches remains still unexplored in that district, where limestone occurs in such abundance.

The objects of my journey did not admit of further indulgence in the pursuit, at that time; and I was content with drawing the attention of one of the party, a young gentleman residing in the neighbourhood, to it, in hopes he might discover some bones of importance.

(I belive these to be Boree Caves ..Ed.)

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the Minister for Labour, Mr Clyde Cameron, announced her appointment as a presidential member of the Australian Arbitration and Conciliation Commission. She is the youngest person ever appointed to a federal judicial post. (Dr Evatt was 36 when he was appointed.) Her salary will be more than $25,000 a year. She will be called Justice and have the status of a judge.

Of her new appointment she says: "I'm awed - it's an enormous responsibility." She thought hard before accepting the job. It was a final sort of thing. It would mean doing the same sort of thing for the rest of your life. And the responsibility was overwhelming...

She has blue eyes, short sandy hair, freckles and an infectious laugh. She looks less like a legal heavyweight than the young Hunters Hill matron which she will be from this week. She and her engineer husband, Mr Ben Nurse, and their daughters, Danielle, nine, and Gabrielle, two, are in the middle of moving out of a home unit at Elizabeth Bay into a not-yet-completed brick house on the waterfront at Hunters Hill.

She has spent the last six weeks in Melbourne appearing on behalf of the Australian Government in the National Wage Case, and commuting home for weekends and carpet and curtain selecting and worrying about what's happened to the 200 native trees that are on order.

Mary Gaudron is the second woman to be appointed to the Arbitration and Conciliation Commission. The first was Miss Elizabeth Evatt, who was appointed in December, 1972. Miss Gaudron has met Miss Evatt but knows her father, Mr Clive Evatt, QC, rather better; she has worked with him on numerous occasions.

The new Deputy President is the daughter of a Moree traindriver. She attended a convent "for the children of itinerant agricultural workers" at Moree before winning a bursary to St Ursula's College, Armidale. She matriculated at 15, winning a Commonwealth scholarship, and started an Arts course at 16.

She was the first part-time student to win the University Medal in Law. She worked in a solicitor's office for a couple of years before going to the Bar? where she has practiced extensively in equity, criminal law and common law, especially defamation.

A legal colleague has said of her: "She has the intellectual quality which is typical of all great lawyers; she has an instinctive appreciation of the essence of the problem before her."

She argued most of the 1973 equal pay case for women.

She was a member of the Bar Council for two years - its first female member. (Her history seems to be full of "firsts" or "youngests".)She has been at the Bar for six years and found it exciting, if at times frustrating, "because the ground rules were wrong or because the law itself was not keeping pace with changing social values". For the past three years she jas been lecturing at the Sydney University Law School, and enjoying it. Lecturing is a good way of keeping in touch and up to date, and"today's students are a fairly exciting bunch with lots of ideas",

How does she cope with the demands of career and family? "It's quite simple, I don't,"she said. "I live in a constant state of mess and two piles of clothes - one to be washed and one to be ironed." She will have

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live-in help in the new house, but says that running a home has never really been a problem. And she has a tolerant husband.

The pair met through caving. Mr Nurse is the founder of the Sydney Speleological Society and is probably the best-known caver in Australia.

Mary Gaudron, as a member of the Arbitration and Conciliation Commission, will be one of the most highly salaried women in Australia. Does she have any extravagances? No, she said, she could never afford them and was not bred to them.

Conservationist

She reads science fiction, worries about environmental issues (the children have an over-supply of T-shirts marked Keep Bungonia Gorgeous), and when there's time goes caving. Sometimes she even tackles the ironing.

I asked her if she had ever met Dr Evatt after that first brief meeting in Moree. She went to the Supreme Court once to watch him presiding over the full court, but, no, they never did meet again. I imagine he would have been quite proud of her.

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THE SYDNEY UNIVERSITY SPELEOLOGICAL SOCIETY WOULD LIKE TO CONGRADULATE MARY, A MEMBER OF SYDNEY SPELEOLOGICAL SOCIETY, ON HER APPOINTMENT.

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"OUT OF THE PAST" - Rik Tunney

(Thisis the first of what is intended to be a series. Each month we will examine the contents of one of the old SUSS Journals - dating from the golden age of SUSS, when Jenolan was virtually unknown and gods walked the face of the earth disguised as mortal cavers.)

THIS MONTH - Volume 1 Number 1 MAY 1950. (Yes, the first of these treasured tomes.)

The issue started with an article describing the aims of the Society and of the journal:

"1. to serve as a vehicle for the interchange of ideas and opinions in items of speleological interest,

"2. to provide a medium for the publication of data from reports, and original observations on Australian Caves."

The role of photography in cave investigation was stressed.(1)

An article on subterranean hydrology gave a general introduction to speleogeomorphology.(2)

The fauna of caves were discussed. The three classes of cave fauna were noted and their origins and ecology discussed.(3)

An article on caves at Oakey Creek was reprinted from Scientific American. (4)

Some incorrect figures on the effects of CO_2 were given. (5)

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References:

1. Anon: "For the Record.." SUSS J 1(1):1

2. Fielding, P. "Notes on Subterranean Hydrology." SUSS J 1(1):4

3. Kelly, J.C. "Cave Fauna." SUSS J 1(1);7

4. Plummer, John "Some Curious Australian Caves." SUSS J 1(1):10
Reprinted from Sci. Amer. Suppl. P.22667. Feb 7, 1903,

5. Anon: "The Effects of Carbon Dioxide." SUSS J 1(1):11.

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"THE CARBONATE ROCKS; LIMESTONE, SHELL SAND, LIME MUD, DOLOMITE."

(Reprinted from "Introduction to Geology" by H.H.Read and J.Watson. Pages 264-268.)

The carbonates concerned in these rocks are calcite, $CaCO_3$, and dolomite $CaCO_3.MgCO_3$, calcite being the main component of the limestones and dolomite of the rock of the same name. The calcium carbonate brought into solution in the lakes or seas is utilised by organisms for the construction of their shells or skeletons and most of the raw material of limestones is primarily of organic origin. Limestones due to the direct precipitation of calcite from solutions are relatively rare. As a result of organic activities, magnesium is dominant over calcium in sea water, few organisms having any notable amount of magnesium carbonate in their shells. Likewise, primary deposits of dolomite of chemical origin are scanty. most dolomite-rock is secondary in origin due, as was mentioned under diagenesis, to replacement by dolomite material of original calcite limestones, the magnesium carbonate being derived primarily from sea-water.

In addition to their dominant carbonate constituents, limestones and dolomites have varying amounts of detrital matter, such as quartz-grains and clay-particles, which provide passages to the psammitic and pelitic rocks.

All the LIMESTONES agree in being made mostly of calcite but they show an immense variety depending on the sources of the calcite. In some limestones, such as the reef-limestones, the calcite is provided by shells and skeletons of organisms accumulating where these grew; in others such material has been mechanicly transported and deposited like any other detrital particles and in all limestones a great deal of precipitation and reprecipitation of the soluble calcite has gone on. All three sources have contributed in varying degrees to make the limestones.

The REEF-LIMESTONES are not composed mainly of coral material but are usually of mixed organic ingredients of which lime-secreting algae provide the dominant part. These limestones form mounds of unbedded, often cavernous, rock flanked by well-bedded limestone, in the manner shown by Fig. 162. Such REEF-KNOLLS or BIOHERMS are often reservoirs for oil, but in many examples the reef-rock has been cemented by the deposition of new calcite and hence its porosity has been lowered. From their origin, bioherms are often richly fossiliferous, in contrast to their flanking limestones deposited in deeper, less hospitable, water. ALGAL LIMESTONE, produced by the activity of lime-secreting water-plants, areprominent members of many limestone formations such as, for example, the

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Trip Report : Bungonia 15-17MAR74

"Freshers' Frolics II."

R.Tunney, A.Watt (Members) G.Madfield, O.Knox, A.Wilton, P.Winglee, R.King, M.Handel (Prospectives) J.Watt (Visitor)

One of the tales of what have laughingly been described as Freshers' Trips, this trip was originally to have been to Wyanbene, however heavy rain and a telephone call to a friend in Braidwood which confirmed that the Shoalhaven River was in flood, forced us to go to Bungonia. This was just as well, for when the Shoalhaven River floods the track into Wyanbene is impassable and on this week-end two 4-wheel drive vehicles were trapped on the wrong side of the river.

Most of the party arrived throughout Friday night. After a usual late start the Grill was entered and the Left Branch Sump was visited. This was the first caving trip for many of the party. The use of the Dräger Gas Detector was demonstrated and a reading of 4.5% CO_2 was made near the sump. All members of the party were thus able to correlate their physical discomfort with the quantity of CO_2 present. The cave was full of non-speleo, non-scouting groups.

After lunch the Lookdown was visited. All members of the party were instantly converted to the true religion - Conservation - and cured fire and brimstone on APCM(A)'s quarry.

The B4-B5 system was then visited. There was a large party entering Fossil so we walked around to Hogans Hole. The descent of the Hairy Traverse caused some difficulty as we had no safety hand line but it was negotiated weth safety. After finding the start of the Extension to be flooded we moved on towards Fossil Cave.

There are two ways of getting through to Fossil cave proper. The first is a high-level dry way, and the second is low-level squeeze through a pool of water. I managed to trick the freshers into believing that the wet way was the only way. Three had gone through before a member of another party came along and gave the game away. I was then grabbed by the revolting (Oh come now theyr'e worse than that) freshers who tried to shove me through the squeeze. After cringing and acting exceptionally cowardly I was released.

Instead of climbing up the rock out of the cave we used a ladder and rope conveniently left by another party. After a rest we moved off to Acoustic Pot. This began to discharge many people so we were discouraged and went back to camp.

On Saturday evening the keen members of the party sat around the camp-fire imbibing and listening to Beetoven and Gilbert and Sullivan while the slacker members entered Argyle Hole and set up the first two pitches.

On Sunday after a typical late start, part of the party entered Argyle Hole, while the rest went down to the Efflux. The water from the syphon has been re-directed onto the cedar which seems to have revived. The Argyle party also visited the Efflux for a wash. The whole party departed for civilisation in mid- afternoon.

-Rik Tunney

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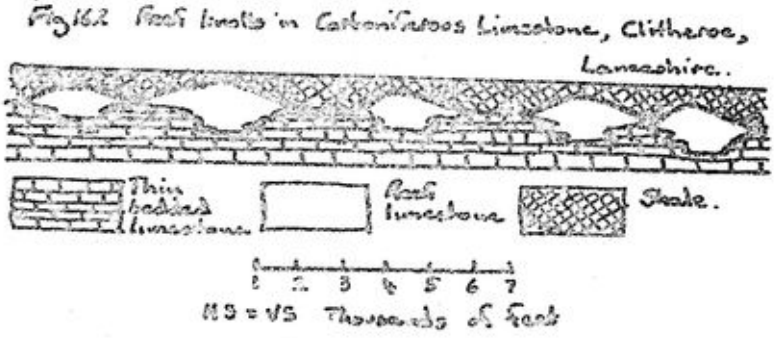
the Carboniferous Limestone of Britain. Other limestones may be formed dominantly of the remains of one particular animal - whether these have been transported or not - and are then given the appropriate name such as SHELLY LIMESTONE, CORAL LIMESTONE, CRINOIDAL LIMESTONE, PRODUCTUS LIMESTONE, ECHINODERM LIMESTONE, TRIGONIA LIMESTONE and so forth. Foraminifera contribute very largely to some limestones, such as the NUMMULITIC LIMESTONE of the Mediterranean region of which the pyramids were made. Another limestone that can be considered here is CHALK, a soft white fine-grained rather friable rock composed of tests of the foraminifera GLOBIGERINA, algal cells, sponge spicules and radiolaria skeletons - these two last made of silica - set in a fine calcite-mud. Chalk occurs in thick beds in the Cretaceous (CRETA = chalk) rocks of Europe.



The detrital limestones, formed by the deposition of mechanicly transported shelly debris, can be compared to the detrital muds, sands and gravels, in so far as their raw materials are concerned. LITHOGRAPHIC STONE is a consolidated calcite-mud, with an exceedingly fine and even grain. Coarser limestones are partially or completely cemented shell-sands or shell-fragments, the calcite being often deposited in optical continuity with that of the fragments. Many of the limestones already named are partly of this detrital origin. Since limestones are important reservoir-rocks for oil, the amount of their cement is a fundamental property.

OOLITES and PISOLITES have been described earlier in this chapter when the shapes of grains of sediments were being discussed. The OOLITIC LIMESTONES are some of the most important building stones; in British examples are the Bath Stone and Portland Stone, white or cream even-grained rocks. It will be recalled that oolites appear to require a rather special mechanism for their formation. Other CHEMICAL LIMESTONES are not of much account; they include deposits from calcareous springs, such as PISOLITE, TUFA and TRAVERTINE, and from other waters charged with calcium bicarbonate that give the STALACTITES and STALAGMITES of limestone caves already described. Of these chemical limestones, TRAVERTINE alone has any industrial importance; it is a cream-coloured rock, porous and cellular in structure, and is quarried in Italy for use in interior building. Some of the tufa-deposits are beautifully banded by impurities or inclusions and then supply the decorative stone known as 'ONYX MARBLE'.

CONTINUED IN JUNE 1974 S.U.S.S.