



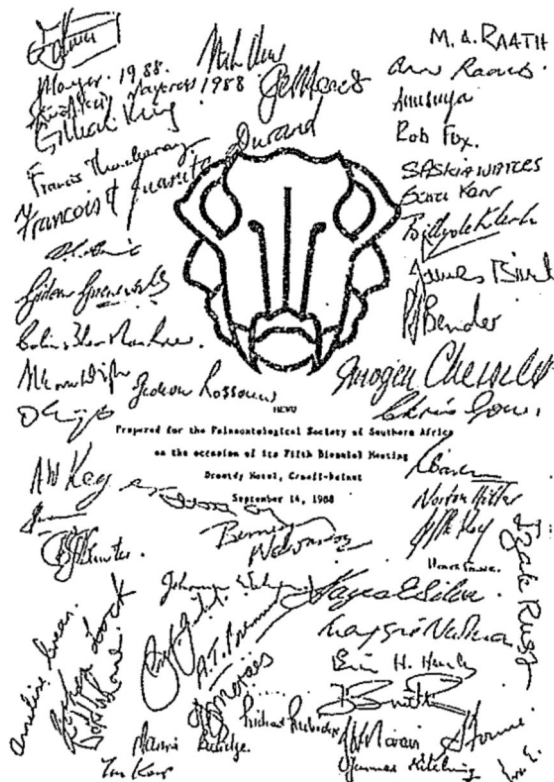
**Biannual Newsletter of the Palaeontological Society of Southern Africa**  
**Halfjaarlikse Nuusbrief van die Paleontologiese Vereniging van Suider Afrika**

Vol./Band 6 (1)

Dec./Des. 1988

PALAEO-  
MENU  
PSSA 5  
1988

(see p. 14)



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## EDITORIAL: Geo-Politics at Graaff-Reinet

I've certainly never been to an association dinner like it! And I doubt if anyone who was there will forget it in a hurry. The guy responsible for it all was our Secretary, Francis Thackeray. He had up his sleeve some classy touches, not least of which was his arranging to re-unite Gondwanaland, *geologically* - by collecting rock samples from various Gondwana continental remnants to be re-united in the staff-of-office of the Association's President (see the report in this issue), and also *geo-politically* (in a more *fitting* sense - to coin a phrase!) - by having Graaff-Reinet proclaimed the Capital of the re-united supercontinent.

(We even beat Dr Danie Craven to the punch on this one! He came with too little, too Luyt!)

The Mayor of Graaff-Reinet, Mr Angus Knott-Craig, who was our Guest-of-Honour at the dinner, will certainly not quickly forget his sudden elevation from civic leadership of a picturesque town in the peaceful South African platteland to trans-continental prominence as Mayor of the newly proclaimed Capital of Gondwanaland, best known of the Paleozoic/Mesozoic supercontinents. *Our* piece of crust was where, unquestionably, it was all at in past geological times. Francis had arranged for an illuminated parchment scroll to be presented to Mayor Knott-Craig in commemoration of this epoch-making event, and we hope it will be cherished as an archival fragment of historic note.

In addition to these geo-political happenings, and the commissioning of our Neo-Gondwana presidential staff, we also had a "name-the-fossil" competition arranged by Graaff-Reinet's own Lex Bremner, and then, to top it all, we had **The Menu**. I need say no more about *that*. See the cover of this issue for an impression of my personal memento of that evening, and then look elsewhere in this issue to see how the menu itself was put together. I defy any organiser of a similar dinner to come up with more original ideas! It sets a standard almost impossible to beat for future dinners, and we didn't even have to resort to the widely threatened "Karoo Oesters"!

All I can say is, All power to you, Francis!

Glossopterat, Gondwana!

(That was going to be "Floreat, Gondwana!", but we all know there were no angiosperms around at the time, and the glossopterids reigned botanically supreme - so what choice had I?)

## PRESIDENTIAL ADDRESS

by  
B W Oelofsen  
President

### EVOLUTIONISTS, WHERE DO WE STAND?

"Isn't it difficult to realize that a trial of this kind is possible in the 20th Century...?" These were the words used by defence attorney Clarence Darrow in the now famous trial in which the Tennessee public school teacher, John Scopes, was found guilty of violating State law by teaching evolution in class in 1925.

As we are all aware, the issue was again at stake in 1981 when the teaching of evolution again went on trial in California. The case was brought to court by, amongst others, the 13 year-old son of Kelly Sergraves, then director of the Creation Science Research Centre in San Diego.

During the trial it soon became clear that Seagraves had retreated from his original demand for the teaching of "Creation science" along with evolution. He opted to challenge the teaching of evolution as "unquestioned dogma". Judge Perluss was incredulous and felt that if that was what the case was all about, they were "wasting an awful lot time". Perluss nevertheless ruled that evolution should not be taught as dogma, but as theory.

Deputy Attorney-General Robert Tyler was unhappy, in spite of the "science framework" still being intact, and felt that "to throw the creationists a bone" as the judge had done "has given them great momentum". These words were prophetic indeed.

Prodded by fundamentalists, legislators in 14 states introduced bills requiring that creationist views be presented in science classes. One Florida school district required creationist ideas to be taught in biology, and many more individual biology teachers voluntarily included these ideas in their courses. Publishers, in response, sharply reduced the amount of space in biology textbooks devoted to Darwinian theory, or they added sections on creationism.

This all led to the passing of a bill in Arkansas in mid-March 1981 requiring that, beginning in 1982, balanced treatment of both evolution and "scientific" creationism must be given in schools if either of the two were taught. This led to the now famous Little Rock Trial in 1981 in Arkansas, presided over by Judge William



Overton. This time "scientific creationism" was on trial and, strange as it may seem, when the trial opened on December 7th, some of the most powerful testimony against the law came from experts on religion.

The state tried to prove "creation science" to be *science*, and not a mask for religion, for, if the latter were true, it would be a violation of the First Amendment of the American Constitution, which prescribes the separation of church and state. The outcome of the case is history, but this unfortunately did not silence the creationists. Their activities increased instead, and they found the southern tip of Africa a very fertile field in which to cultivate their ideas. Duane Gish, vice-president of the Institute of Creation Research, visited South Africa and gave a series of lectures in line with his statement after the Little Rock trial that "We will be heard". Recently, the creationists acquired a new prophet in South Africa in the form of a former colleague of mine, Dr W J Veith. Dr Veith is apparently re-iterating all the old creationist arguments about the age of the earth, the great flood, the statistical improbability that life could have evolved at random, the Second Law of Thermodynamics, etc.

"Converted" scientists are a windfall for the creationists, and are used to their full potential over and above the fact that evolutionists like, for example, Stephen Gould, are often misquoted to further their aims. In the Arkansas trial the scientific star witness was Dr Chandra Wickramasinghe, the co-worker of Sir Fred Hoyle. These two gentlemen have the distinction to share with Crick (of DNA-helix fame) the idea of "*panspermia*", or that life arrived on earth from outer space, astride the back of a galloping comet! How this explains the *origin* of life is *their* dilemma! Wickramasinghe, however, invents a creator who created life only, and who exists within the physical and chemical context of the universe. Present chemical and physical laws were therefore not in existence and were not a factor in creation.

Where do we find ourselves in South Africa? Needless to say, in a worse position than most scientists in the western world. We have no First Amendment to fall back on, we have no teaching of evolutionary theory in our schools, and even books that go into school libraries are apparently screened to ensure that reference to evolution is kept to a minimum. Biology in syllabi is treated as a string of totally unrelated phenomena, and great care is taken not

to raise the question of possible relationships in the minds of scholars.

Might it be that our Society is keeping a low profile on the matter to appease the fundamentalists among us, and that somewhere out there the "silent majority" is happy to allow science to go its peaceful way? I decided to test this in a small way by talking to people "out there". My dilemma was, to whom should I talk? In the end I decided to interview five veterinarians. I chose vets for, I reasoned, although they worked with animals and were therefore exposed to the biological world, they were not that much exposed to the controversy about evolutionary theory. So, as a group they seemed to me a good place to start, and perhaps also a safe one from my point of view.

Much to my dismay the outcome of my interviews painted a pretty bleak picture for evolution as an acceptable theory. Of the five interviewed, only one knew what evolution was about. In fact, this man had followed the the whole controversy around creationism. The second person, a woman of German descent, stated that she grew up with the idea of evolution. A series of television programmes entitled "*the Origin Series*" that is currently being screened in SWA/Namibia at present has, however, cast great doubts in her mind - amongst other things about the age of the earth (no need to say what the basic theme of these programmes is!). The three remaining vets reject evolution. They will acknowledge that evolution *within* species is possible, but refuse to accept that man evolved from lower forms. There goes my "silent majority" of informed and educated people, with a score of one out of five! What is even more disturbing is (1) that these vets were all exposed to the comparative anatomy/evolutionary lectures of de Boom, who lectured at Onderstepoort from 1955 to 1974, and (2) the impact of these television programmes.

We should realize that retreating into "evolutionary ivory towers" by keeping a low profile on this matter is the worst thing we can do. We should actively advocate our case!

But what is our case, and what are we up against? This may seem like a foolish question, but is it?

Do we fully realize that we are up against a movement that is out to discredit science as a whole? It is not only evolution - and therefore biology - that is at stake, but (although perhaps

Indirectly) also sciences such as geology, astronomy, chemistry and physics.

If, for a moment, we separate "fact" from "theory" - with all the data we have as "facts", and the model explaining and organising them as "theory" - we can take stock of what we have. As far as facts are concerned, we have been accumulating them "ever since Darwin", and not a single troublesome "Black Swan" has appeared. (In medieval textbooks on logic it was frequently given as an example of fact that "all swans are white"; a single black swan from Australia of course disproved this). We have done extremely well in accumulating facts in support of the theory of evolution. Even if this does not prove our theory, dear Karl Popper, we are as close to doing that as we may ever be. In addition, not even the creationists can claim that they are looking harder for "black swans" than we palaeontologists are. Should man have been present in the Cretaceous to make spools in the Paluxy River in Texas, we, and not the creationists, would find the proof of that.

In our quest to understand the cogwork of Nature, we palaeontologists have made ourselves the Keepers of the Clues, not only of our past, but, because of that, also of the future. Could we not timeously find a parallel in the past to the "Nuclear Winter" of Paul Crutzen (perhaps as a result of volcanism instead of nuclear warheads)? Pray, though, that the soot in the air does not come from the burning of scientific textbooks. Western civilisation may not be as immune to religious fanaticism as we may naively choose to believe!

Has the time not come for us to prepare ourselves, and - to borrow a metaphor - to "gird up our loins"? Should we as a society not compile sound answers to the arguments of the creationists, and go public on them?

I wish you all a very fruitful conference, and please accept my apologies for my absence.

Burger Oelofsen

Windhoek, September, 1988

*(Thank you, Burger, for a challenging and thought-provoking Presidential Address; and best wishes to you and Toni on the birth of the baby for the sake of which you had to miss the conference! Ed.)*

## MEET THE NEW PSSA COMMITTEE

We thought members might be interested to see what rogues are now in control of Association affairs! You get what you vote for!!



*Prof. James Kilching*  
**President**



*Dr Jurie van den Heever*  
**Vice-President**

*Dr Francis Thackeray*  
**Secretary**



*Dr Mike Raath*  
**Editor**

*(Missing: Dr Burger Oelofsen,  
Immediate Past President)*



*Roger Smith*  
**Treasurer**

## THROUGH THE LENS AT PSSA 5

3

*Right: The Mayor, Mr Angus Knott-Craig, (left) receives the scroll proclaiming Graaff-Reinet the Capital of Gondwanaland from Master-of-Ceremonies Jurie van den Heever.*



*Below: Jurie Inducts the new President, James Kitching, by handing him the Gondwana-Reunited staff-of-office, while overseas guest Dr Gillian King looks on.*



## THROUGH THE LENS AT PSSA 5

*Pictures that prove how diligently we searched for Helen's ...!*



Now where can it be?

*Blaaskans op Steilkrans?  
(Ian Brink met nog twak)*



Aha!  
(this picture proves that  
palaeontologists are prepared to work  
their fingers to the bone in pursuit of  
specimens!)

How about a competition to identify  
whose mangled fingers they are? (The  
winner would receive the severed  
fragments of all the digits preserved in  
well-matured, 20-year-old KVV!)

## 1838 - 1988: ONE HUNDRED AND FIFTY YEARS OF KAROO FOSSIL REPTILES

by

Michael Cluver

*Director, South African Museum, Cape Town*

The year 1988 marks the one hundred and fiftieth anniversary of the discovery by Andrew Geddes Bain of fossil reptile remains in South Africa. Although archival research reveals earlier isolated reports of fossil bones in the Karoo region, Bain's discovery was noteworthy for two reasons. Firstly, he found the fossils while pursuing his own survey of the Cape and, secondly, he proceeded to collect further fossils on a systematic basis and went to great pains to ensure that the collection was brought to the attention of the leading palaeontologists of the time.

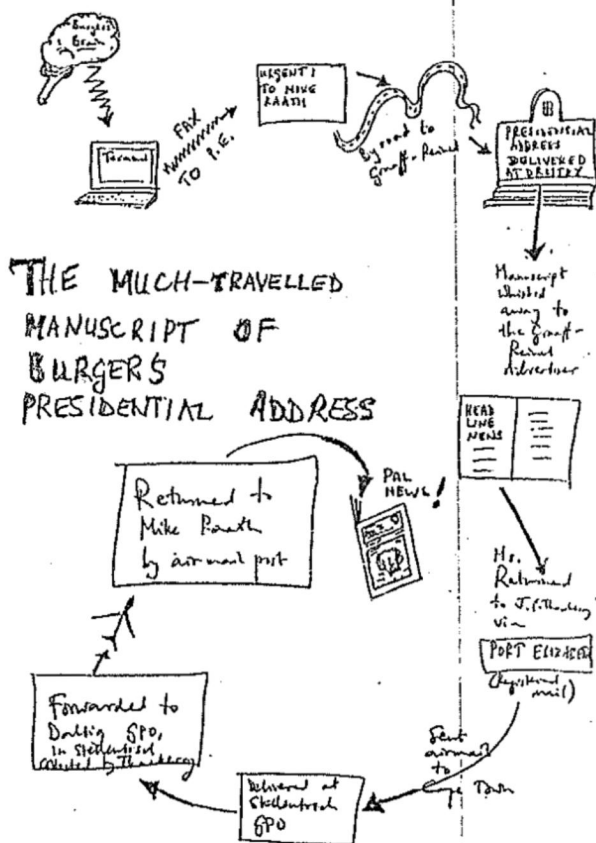
Andrew Geddes Bain was an engineer employed in the construction of military roads in the eastern Cape at the time of his discovery. He had read Lyell's *Principles of Geology*, become fascinated by the geology of the country around him, and was actively seeking fossilized plant or animal remains when he came across his first "bidental" skull near Mildenhall, north of Fort Beaufort, in 1838. The rock matrix, which he described as "exceedingly hard, and so amalgamated with the bone that it was not only difficult to separate the one from the other, but even to distinguish which was which" did not deter him from continuing his search for further skulls and skeletons with such ardour and enthusiasm that his family and close friends more than mildly concerned for his state of mind. However, Bain did manage to interest men like W G Atherstone in his finds, and eventually saw his collection dispatched to the Geological Society of London.

In a letter to Sir Henry de la Beche, Foreign Secretary of the Geological Society of London, dated "Fort Beaufort, April 29, 1844", Bain described the discovery of the fossils, and gave some account of the surrounding geology. This was read on 8th January 1845 (*Transactions of the Geological Society of London*, vol 7), together with the first description by Richard Owen of the specimens. One of Bain's "bidentals" became the type of *Dicynodon lacerticeps*, and suddenly a new era in vertebrate palaeontology was underway.

Bain's first fossils, together with others subsequently sent by him to the Geological Society, were transferred to the British

Museum in 1852, on the advice of Owen, so that they could be properly prepared and studied. They are magnificently illustrated in Owen's 1876 "Descriptive and Illustrated Catalogue of the Fossil Reptilia of South Africa in the Collection of the British Museum."

Anyone with an interest in South Africa's famous Karoo reptiles, and their bearing on the origins of the later groups, can appreciate Andrew Bain's excitement 150 years ago, and pay tribute to the enormous contribution made by this doughty pioneer of our discipline.





RE-UNIFICATION OF GONDWANALAND SEDIMENTS  
IN GRAAFF-REINET,  
CAPITAL OF GONDWANALAND

Shortly before the Fifth Biennial Conference of the PSSA, a small brown envelope reached the British Consulate's Office in Cape Town. In bold black letters it bore the caption "*On her Britannic Majesty's Service*". Addressed to the Palaeontological Society of Southern Africa, it contained a sediment sample from Mount William, East Falkland.

At about the same time, Burger Oelofsen, Jurie van den Heever and Le Fras Mouton were instrumental in recovering a particular sample from South America, notably from deposits associated with *Mesosaurus* in Brazil. The same deposits correspond to the "White Band" in South Africa where *Mesosaurus* has also been found.

Meanwhile, James Kitching had sent to PSSA headquarters a number of samples which he had collected during his visit to Antarctica in 1969 (for more details, see article entitled "*Lystrosaurus* Zone (Triassic) Fauna from Antarctica", by Kitching, Collinson, Elliot and Colbert (1972), published in *Science*, 175: 524-7). James' donation to the PSSA included:

- 1 A Devonian sandstone sample from the Lower Beacon Supergroup, Darwin Mountains, Victoria Land, Antarctica. Trilobite trackways had been found on the block from which the sample was taken.
- 2 A Permian rock sample from the Buckley Formation (c.f. South African Ecce), Mt. Kenyon, McGregor Glacier, Antarctica. The specimen was associated with *Glossopteris* leaves.
- 3 A Triassic sample from the Fella Formation, Collinson Ridge, McGregor Glacier, Antarctica. The specimen was associated with well preserved *Dicroidium* leaves.

In mid-1988 Roger Smith and James Kitching collected a number of samples from various parts of the Karoo. These included sediments from the "*Eodicynodon* Assemblage Zone" from the Laingsburg Formation (Ecce Group); the *Dicynodon lacerticeps* Assemblage Zone from Wilgerbosch; and a sample from the *Lystrosaurus* Zone at the base of the Katberg Formation (collected from the Lootsberg Pass).

Just before the PSSA Conference in Graaff-Reinet, Colin MacRae collected sediment samples from Australian Permian

deposits (complete with spores), and Anusuya (Chinsamy) Moodley obtained an Indian sample.

Although these samples relate to different places and different time intervals, they have one thing in common: they all come from what was once the Great Continent of Gondwanaland. And on the occasion of the Fifth Biennial Meeting of the PSSA in September 1988, in the town of Graaff-Reinet in the Karoo, these parts of Gondwanaland were ceremonially re-united. They were placed together in a transparent jar that has now become a Staff of Office for successive Presidents of the Society. A label on the container reads as follows:

"The sediments and rocks contained in this Jar were formerly once part of the Great Continent called Gondwanaland. Since the break-up of Gondwanaland, they have been separated for many millennia. However, samples collected from Antarctica, Australia, India, South America, the Falkland Islands, and from the Karoo in South Africa, all once part of Great Gondwanaland, have been re-united in this container, and henceforth shall be passed on from one President of the PSSA to another".

After ceremonially handing this Staff of Office over to James Kitching (incoming President for the 1988-1990 term), Jurie van den Heever read out a Declaration, proclaiming Graaff-Reinet the Capital of Gondwanaland. This Proclamation has been recorded in the form of an illuminated Scroll. James Kitching's first task as President of the PSSA was to sign the Scroll before it was presented to His Worship, Mr Angus Knott-Craig, Mayor of Graaff-Reinet.

The organising Committee of the PSSA Conference extend their thanks to all persons who kindly assisted with the collection of Gondwanaland sediment samples. Special thanks are also extended to Jacqui Blaeske of the South African Museum, who kindly drew up the scroll which declares Graaff-Reinet as Capital of Gondwanaland.

Francis Thackeray

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#### PRIZE-WINNERS AT PSSA 5

The traditional awards at the Association dinner were augmented this year by the addition of a new, handsome carved geelhout trophy depicting the association's *Lystrosaurus* emblem.

Specially carved and presented to the Association by our master-craftsman, Gideon Rossouw (now sporting fewer fingers than before, literally!), the *Lystrosaurus Shield* makes a worthy and more serious addition to the Association's small range of fun awards originally introduced by Jacques van Heerden.

The adjudication panel of Mike Cluver, James Kitching and Mike Raath had the unenviable task of choosing winners for:

1. The *Lystrosaurus Shield*, for the paper judged to be the best among those presented by younger contributors. The guidelines for the award specifically excluded from consideration papers by those whom the adjudicators considered "established scientists";
2. An award for the best of the poster presentations, based not only on their impact as displays, but clearly on the basis of their scientific content as well.
3. The traditional "*Order of the Boot*", for the paper making the most outlandish or unlikely claims on the basis of the evidence presented - In other words, *the biggest lie!* As all members will know, Roger Smith has virtually made this trophy his own over the past few years, and had he not been disqualified by frequency of prior award, he might well have done so again. (Quite a number in the audience thought that his paper on Permian coprolites was the biggest lot of \*\*!#@## they had heard in a long time!);

After much agonising by the panel, the winners selected were:

*Lystrosaurus Shield*: Anusuya Chinsamy Moodley, for her paper on bone histology in archosaurs, fossil and modern;

*Best Poster*: Gideon Groenewald of Golden Gate Highlands National Park, for his poster on the sedimentology and palaeontology of the Beaufort Group in the park;

*Order of the Boot*: Norton Hillier, for his paper on hyoliths from Devonian deposits in South Africa. A likely story, indeed! (See elsewhere in this issue, for Norton's continuing, blatant, unashamed self-justification! p24)

Congratulations to all contributors for putting so much effort into a really excellent crop of papers.



# NOTES ON THE PALAEOMENU

The items listed on this menu have not been classified according to the International Rules of Gastronomical Nomenclature. For this reason, a few words of explanation may be helpful to carnivorous and/or herbivorous delegates, should they wish to know exactly what they will be eating.

1. The extraterrestrial ("out of this world") Hors d'oeuvres is a mock crayfish cocktail.

2. "Primordial Soup", otherwise known as Creation Consomme, is traditional Oer-karoo Boontjiesop. Here it is served with a few spiral noodles, the DNA twist supplied by Fatti's and Moni's.

3. Fish Dish: Every attempt will be made to obtain freshly prepared specimens of Latimeria. However, fresh fish (especially coelacanths) are rare these days in Graaff-Reinet. In fact, supplies have been short ever since the last major marine regression. Kingklip Tetrapodzinni (also known as Kingklip Tetraxinni) will be prepared should Latimeria be unobtainable. Freshly prepared coelacanth specimens can however be examined by special appointment with Burger Oelofsen at the Directorate of Sea Fisheries in Windhoek.

4. Entre. Chickens are believed to be so closely related to dinosaurs as to belong to the same Phylum, and the age-old chicken-and-egg problem (which came first?) can be examined in a palaeontological context. This perplexing palaeoproblem is presented here on Pangea Pancakes.

5. Main dish. Carnivores should be content with Karoo lamb. Mrs Fringle of the Drosty Hotel assures us that the lamb from the Graaff-Reinet zone has a very special flavour which cannot be found anywhere else. A recent analysis has shown that the special flavour is attributable to certain trace elements absorbed in the diet of Karoo lambs. These elements have been recycled through natural processes of ingestion, digestion and evolution ever since the steady days of tapinocephalid dinocephalians in the region presently known as Graaff-Reinet, capital of Gondwanaland.

Glossopteris Glue: Vegetarians who do not wish to partake of Karoo lamb may prefer to stick to this special side-dish, made from Spinach Lassagne Paste. It includes a meat-substitute. Of course, as herbivores, vegetarians can also enjoy the angiosperms in season. Omnivores are welcome to try Glossopteris Glue with their angiosperms and Karoo lamb.

Gondwanaland Toast: Sediment samples from various parts of Gondwanaland will be brought together, and a special toast to Great Gondwanaland will be proposed.

6. The K/T dessert is a spectacular Karoo Trifle with cream, spiked with a bit of sherry. The concentration of Iridium is as low as you will find in any conventional trifle, so low as to be almost immeasurable. A mere trifle.

7. Mint chocolates with coffee, cheese and biscuits are available for all who manage to get through the K/T event.

"Die  
Suid-Afrikaan"  
Hier is  
leesstof  
van gehalte

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# Graaff-Reinet

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We Cover the Midlands

136th YEAR

Published MONDAYS AND THURSDAYS

Monday, September 12, 1988



This morning Dr Mike Cluver (Left) Director of the SA Museum, made a presentation to Prof James Kitching on behalf of the Palaeontological Society of Southern Africa in recognition of his contribution to palaeontology in SA. Prof Kitching was born in Graaff-Reinet. He told the conference that his connection with palaeontology went back as far as 1912 when his father collected fossils for the late Dr Sidney Rubidge. He started his career here during his years as scholar of the UHS and was appointed to the Bernard Price Institute where his work was rewarded first with a doctorate and then with the professorship.



## Palaeontological conference here this week

The fifth biennial con-

ferences into the fossil

UCT: P. Hartzenberg;  
Jorge Hayes-E-Silva; Dr

**BI  
RSA  
as a**

A bleak picture for evolu-  
the 5th biennial conference  
absence by Dr M. A. Raa

His address was entitled  
"Evolution: where do we  
stand?"

He sketched the history of  
the battle between the crea-  
tionist lobby vs the evolutionist  
lobby in the USA since 1925,  
and the increased conflict in  
1981 which ended up with the  
famous Little Rock Trial in  
December 1981 in Arkansas.

Since then the activities of  
the creationists increased and  
they found the southern up of  
South Africa a very fruitful  
new field to cultivate their  
ideas, according to Dr Oplow-

"Duane Gish, vice-pres-  
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arguments about the age of  
the earth, the great flood, the  
statistical improbability that  
life could have evolved at ran-  
dom, the absence of transi-

# Advertiser

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## Peak picture in A for evolution acceptable theory

Evolution as an acceptable theory in the Republic of South Africa was painted by the President of the Palaeontological Society of Southern Africa, Dr B. Oelofsen, in his address read in his lecture hall this morning.

We have no teaching of evolutionary theory in our schools and even books that go into school libraries are apparently screened to ensure that reference to evolution is kept to a minimum. Biology in schools is treated as a string of unrelated phenomena and great care is taken not to touch the question of possible relationships in the minds of students.

### PROFILE

Might it be that our society is keeping a low profile on the matter to appease the fundamentalists amongst us and somewhere out there the silent majority are happy to allow nature to go its peaceful way? I decided to test this in a small way by talking to people "out there". My dilemma was, not to talk to and in the end I decided to interview five veterinarians. I chose vets, for, I reasoned, although working with animals and therefore exposed to the biological world, they were not all that likely to be exposed to the controversy about evolutionary theory as a group, a good place to start and perhaps also a safe



Photographed at the conference of the Palaeontological Society of SA which started its three-day session in Graaff-Reinet today, were Mr Richard Rubidge (left), son of the late Dr Sidney Rubidge who founded the Wellwood Fossil collection, and Dr Bruce Rubidge, of the National Museum, a grandson of Dr Sidney Rubidge.

## NEWS FROM MEMBERS

Arthur Cruickshank,  
Hinckley, Leicestershire

I'm busy with the following projects:

1. The cranial anatomy *Cryptoclidus eurymerus* (Phillips) - with D S Brown of Newcastle University. We presented a preliminary account of this skull, excavated last September from the Oxford Clay near Peterborough, at the VPCA in France.

2. The Lower Liasic pliosaur *Rhomaleosaurus macrocephalus* Owen - with M A Taylor, Leicester Museum.

My contract with Leicester Museum ended in January, but I was asked to prepare their "historical" 1851-vintage pliosaur (*Rhomaleosaurus*) skull - a large specimen almost undistorted, which will be very interesting to compare with the Peterborough *Cryptoclidus* which I prepared on behalf of the Peterborough City Museum - using the Airbrasive for the first time (for me).

The latter skull had been collapsed like a matchbox during preservation, so the distortion problem is quite severe, but elements of the cheek region and braincase are quite well exposed - for the first time as far as the cheek region is concerned. *Cryptoclidus* is readily derived from a younginid-like ancestor, through perhaps something like *Pachypleurosaurus*. Which leaves the elasmosaur/pliosaur cheek pattern to be explained differently, somehow.

David Brown and I are "doing" the *Cryptoclidus*, and Mike Taylor will do most of the science on the *Rhomaleosaurus* skull.

In the meantime I am busy casting the pliosaur skull to replace the original on the wall - I remember so vividly watching Jonas at work in the BPI and bless the memory so that I can make a start on casting/moulding!

The VPCA was held in Boulogne and went very well. Next year Leicester will host the 37th symposium, and in 1990 the Open University will act as Organiser and Host, but it will probably actually take place in Durham. Things may get a bit confused in 1991 as Bev Halstead wants to celebrate the 150th anniversary of "The Dinosauria" at the British Association meeting in Plymouth. But as that will be in August, and is anyway a *Heavy Media Event*, we may well run two VP symposia in 1991, with the "genuine" one in late September as usual!

Ah, yes - the O.U.; I became a part-time Science Editor in



April on a two-year contract, so it is really into sorting out the detail of all sorts of material, from book-level stuff to single pages describing the contents of Home Kits: mostly Earth Sciences, with a little Biology. In addition I still teach the elementary Geotechnology pracs for the Coventry Poly Civil Engineers and do day schools on VP for Birmingham, Leicester, and other bods.

Geo Abstracts has taken all its editing into the office, so my last contribution to them went off a few weeks ago. However, I personally think they've taken on more than their young staff can cope with!

John Martin, Keeper of Earth Sciences at Leicester is off to China soon to look at their Jurassic sauropods. If we are very, very lucky, he'll persuade them to bring the therapsid show from New York to Leicester sometime in 1989/1990. I may be able to go to India in 1990 to see the Yerrapalli material and do some field-work in an entirely new area which Saswati Bannerjee is contracted to survey.

Sue Gay graduated in March and is also in the publishing business. Mike Stocker is well ahead in reconstruction, analysis and description of a *Sangusaurus* skull which is turning out to be a very strange dicynodont indeed.

Otherwise it's been a quiet year!

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**James Brink,  
National Museum, Bloemfontein**

I have started a joint project with Dr J Peters, Institut für Palaeoanatomie, University of Munich, on the osteomorphological separation of the grey rehbuck and the springbok. Otherwise I am occupied with the study of new mammal finds from the Klasies River Mouth Caves as well as various small Holocene archaeological faunal samples.

*Recent Fieldwork:*

We are starting a new excavation program at Florisbad. Its main aim will be to extend a partly uncovered Middle Stone Age living floor.

*News of Palaeontological Interest:*

I have recently spent nine months at the Institut für Palaeoanatomie, University of Munich, attending courses on the osteology of mammals and fishes. The mammal course focused on the mammals of Europe, Near East and North Africa, while Nile

fishes were used as examples in the fish course.

I also studied a small Neolithic faunal sample from southern Germany at the same time. The object of doing this was to acquire methods of separating closely related species on relatively small bone fragments. These methods have been developed by "osteo-archaeologists" in Germany, but the principles can easily be applied to the Quaternary faunas of southern Africa. It is hoped that the application of this will enable one to better define size changes as well as changes in the distribution of species in the recent past.

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### Geologiese Opname, Pretoria

In die vorige nuusbrief het u gelees van die ekskursie wat Eva Kovacs-Endrody en ek onderneem het. Dit was baie suksesvol; ons het nie net ons *Promissum* versameling met tientalle nuwe voorbeelde aangevul nie, maar ons het ook vasgestel in watter horisonne *Promissum* voorkom. Eva het by nadere ondersoek sporige gevind waarvan een onteenseglik aan die hoofstruktuur vasgeheg is. Elektronmikroskopiese toetse gedoen deur Colin MacRae en Deon de Bruin het getoon dat *Promissum* hoofsaaklik uit koolstof en silikon bestaan en dat daar geen fosfor of kalsium teenwoordig is nie. Eva is ook nog besig met die finale afronding van referate wat onderskeidelik handel oor *Glossopteris* en *Belemnopteris*. Verder is Eva ook besig met die identifikasie van die Pivaan flora.

Colin het net voor die Vyfde PVSA Konferensie teruggekeer vanaf Australië. Hy het 'n referaat oor die teenwoordigheid van Karboon sedimente in Suid Afrika en die identifikasie van die Karboon/Perm grens gelewer by die Sewende Internasionale Pollenologiese Konferensie in Brisbane. Hy het ook in Melbourne by die Derde Paleobotaniese Konferensie 'n referaat namens Eva voorgelees wat gehandel het oor die geldigheid van die Internasionale Standaard Etages. Vanweë die geskiedkundige betrokkenheid van Australië by hierdie onderwerp, het haar referaat groot belangstelling uitgelok. Colin het ook 'n ekskursie na die Victoria platteland onderneem waar hy die beroemde *Baragwanathia* vindplek en die bruinkoolafte van die Latrobe vallei besoek het. Hy was geleendheid gegun om baie tipe eksemplare, wat ooreenkomste tussen Suid Afrikaanse en Australiese mikrofloras bevestig, te sien en te fotografeer.

Linda Karny is besig met die analisiering van materiaal van die plaas Hamburg op die Springbokvlakte. Sy doen ook voorbereiding van materiaal van Steenkoollaag 4 wat deel vorm van 'n landwyse steenkoolnavorsingsprojek wat poog om paleo-omgewings te bepaal. Sy is ook besig om 'n katalogus van fossielsore en -stuifmeel saam te stel.

Magdel Gricius is besig met die moeilike taak om al ons fossiele te herkatalogiseer en ons fossielstoor agtermekaar te kry.

Pam Prowse is besig om harsafgietsels van ons beter fossiele te maak en te verf sodat ons mettertied van hierdie afgietsels kan verkoop of uitruil.

Andre Keyser is besig met die hersiening van die kleiner Endothiodontidae. Hy het ook 'n ondersoek van die dolomietgrot "Haasgat" begin (daar bly wel 'n haas in Haasgat!).

Ibolya Sopik is verantwoordelik vir die skoonmaak van al die delikate fossiele wat daar gevind was. Voorlopige bevindinge dui daarop dat die afsettinge fossiele van Plio-Pleistoseen ouderdom bevat.

Ian Brink se volume 3 van die katalogus van die Synapsida is amper voltooi.

Die werk aan my tesis oor *Moschorhinus* staan ook einde se kant toe. So tussendeur werk ek aan die twee referate wat ek by die PVSA 5 Konferensie aangebied het en hopelik sal alles klaar wees teen vroeg volgende jaar.

*Francois Durand*

*(Bale dankie vir 'n Interessante verslag, Francois. Dit lyk my julle is almal druk besig daar bo! Voorspoed, en sterkte!  
Die Redakteur)*

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**Bernard Price Institute for Palaeontological Research,  
University of the Witwatersrand**

*Anusuya Chinsamy Moodley*

I would like to congratulate Prof Kitching and Roger Smith for the very interesting excursion that they organised during the PSSA Conference. Francis Thackeray also did an excellent job regarding the organisation of the conference.

On the whole the PSSA Conference was a most rewarding experience.

On returning to Johannesburg, things have been quite hectic. I have unfortunately not been able to do much bone histology because I had to prepare for a few lectures on Cave Formation and the distribution of the hominids, which I presented to the Geology I students.

Next year, I hope to extend my present study of bone histology to include the bone tissue patterns that are found in *Massospondylus* and the ostrich. *Massospondylus* and *Syntarsus* are often found in the same sediments; the secretary bird (which I examined previously) and the ostrich both live in hot, arid environments. I will therefore be looking at a group of animals that inhabit/inhabited very similar environments.

It will be very interesting to see whether there are any similarities in the bone histology that could be attributed to this common factor.

Also, a comparison of the pattern of lamellar-zonal bone deposition in *Syntarsus* and *Massospondylus* will be quite interesting.

I would like to take this opportunity to wish everyone well over the festive season, and all the best for the new year.

Heidi Fourie

I am in the last phase of my Honours degree, preparing for the coming exams. My field of research this past year was the comparison of *Palemydops*, *Emydops* and *Pristerodon*. I conclude that *Emydops* and *Pristerodon* are valid genera. *Palemydops* has been quite a headache, but it seems that it may be a possible synonym of *Emydops*. I hope to continue my studies here at the BPI next year, and I'll probably carry on with my study of the dicynodonts.

#### *BPI (Palaeontology) contributions to the PSSA Conference:*

##### Papers:

J W Kitching: On the variety of the fossil vertebrate species from the Graaff-Reinet district.

Gow, C E, Kitching, J W and Raath, M A: Skulls of the prosauropod dinosaur *Massospondylus carinatus* Owen in the collections of the Bernard Price Institute for Palaeontological Research.

Durand, J F: The endocranium of the therocephalian *Moschorhinus*.

-----: The cranial blood vessels of the Therocephalia (Reptilia: Therapsida).

Chinsamy Moodley, A: Physiological Implications of the bone histology of *Syntarsus rhodesiensis*.

#### Poster Presentations by Graduate Students:

Bamford, M: Some angiosperm leaves from the Orapa Pipe, Botswana.

McKay, J I: A Cretaceous fossil promecognathine (Promecognathinae: Carabidae: Coleoptera): Amphitropical distributions and cladistics.

Bender, P A: Suidae of the Makapansgat Limeworks.

Waters, S: Cretaceous Diptera from Orapa, Botswana.

Fourie, H: Comparison of *Emydops* and *Pristerodon*.

Fox, R: Sedimentology of Bramleyshoek, Clarens district.

Kerr, S J: Pollen analysis of a section of Member 2 Breccia, Makapansgat Limeworks.

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Norton Hiller,

Department of Geology, Rhodes University, Grahamstown

#### Recent Fieldwork:

During October, I spent a few weeks in the field in SWA/Namibia where I was mainly concerned with late Proterozoic turbidite deposits in the Ugab River area. However, on the way to the area with Roger Swart, who is currently studying these rocks, we paid a brief visit to Walvis Bay where I was shown an unusual occurrence of brachiopods. Near the pump station at the outer edge of the lagoon is a portion of beach made up almost entirely of shells of the inarticulate *Disclinisca tenuis*. It was quite mind-boggling to see literally millions and millions of specimens in one spot, especially when one is used to finding only a few at a time. This species must be living in considerable numbers in the shallow subtidal zone, but quite why so many should be washed up at once is something of a mystery. We know that the phenomenon is repeated at several other places along the Namibian coast and I would like to follow up with some more detailed work in the future.

Whilst in Windhoek I met Burger Oelofsen and had the pleasure of listening to a talk he delivered to the local Wildlife Society on the management of fish resources off the Namibian

coast. Although he does not have much time available for Palaeontology, I was glad to see that Burger's interest is undiminished. He and Roger Swart have been collecting fossil "Ostrich" shells and I hope we will hear more about their work in the future. Burger's presence in Windhoek is a blessing for the Geological Survey there as they do not have a palaeontologist. Students from Gottingen University who are currently working on Karoo rocks north of the Brandberg have been bringing in fossils, especially of *Mesosaurus* and it has been very useful having Burger on hand to confirm identifications.

*Recent Publications:*

1987. The identity of *Chonetes falklandicus* (Brachiopoda, Devonian). *Jl Paleontol.*

1988. The development of growth lines on articulate brachiopods. *Lethaia*

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## HELENS

by

Norton Hiller

After my talk at the Graaff-Reinet conference, a number of people asked me about the derivation of the term "*helens*". Those who were at the meeting may remember that these were curved scimitar-like appendages that were attached to the operculum of hyoliths belonging to the order Hyolithida. As a result of these I went to the relevant literature and I can report as follows:

The term "*helens*" was first applied to the lateral appendages of hyolithids by Runnegar et al. (1975). These authors regarded the skeleton of these enigmatic little animals as consisting of four parts (fig. 1): an elongate cone, commonly flattened on one side; a close-fitting operculum; and two narrow curved structures, variously termed "fins", "supports", "props" or "appendages", which projected from slots between the operculum and the conch on opposite sides of the organism. They termed these structures "*helens*" because the word has no functional connotations, and they were first described under the generic name *Helenia* by Walcott (Fisher, 1962).

The helens are logarithmically curved, flattened, and possibly tubular appendages ornamented with fine transverse lines. If these are growth lines it is likely that the helens grew by additive

deposition at their proximal ends and were not covered by body tissue. Well-preserved hyolithids from the Cambrian Burgess Shale of British Columbia, famous for its soft-bodied fossils, show no traces of soft tissues associated with these structures. The helens lodge in shallow sockets and probably were attached to and secreted by mantle tissue within the shell. No trace of muscle attachments has been found on helens, and they probably functioned as passive stabilizers and/or inefficient organs of locomotion.

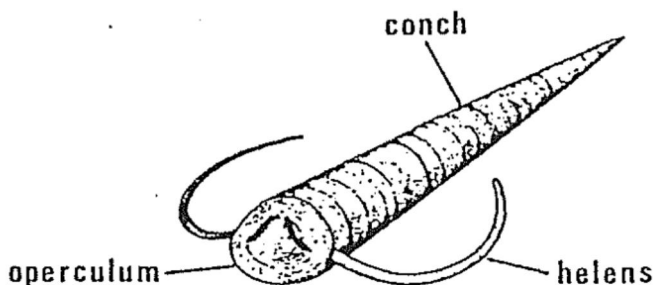


Fig. 1: Reconstruction of a hyolithid shell showing helens in position between conch and operculum.

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### UNIVERSITY OF PORT ELIZABETH PALAEONTOLOGY EXCURSION, 1988

The annual palaeontology excursion to Graaff-Reinet and surroundings enjoyed more favourable weather this year than last year. Add to that the company of Mike Raath and Bruce Rubidge, plus the PSSA Conference in Graaff-Reinet the week before, and you could only have a big success. Having a very interesting field

guide prepared by James Kitching and Roger Smith for the PSSA Conference was also of great benefit to us all, and we gratefully acknowledged James and Roger.

We left Port Elizabeth in somewhat drizzly weather on Friday 23 September. Right from the outset the bus, driven by a very enthusiastic Andre Willemse, proved to be fast and luxurious. The Bokkeveld quarry just outside Uitenhage once again did not let us down. Very good specimens of trilobites, gastropods and brachiopods were recovered and expertly identified by Norton Hiller from Grahamstown who had arranged to meet us there. He also gave a concise and interesting talk on the Bokkeveld to the students. Despite prize money offered by Norton, and 42 students in hot pursuit of this fortune, "*Helen's aperture*" is still playing hard to get - thus no definite hyoliths at this site! We departed, leaving Norton searching for the elusive aperture.

The first night was spent in Urquhart Park camp-ground in Graaff-Reinet. A combination of *Lystrosaurus lager*, *Archaeopteryx a la King*, and pleasant weather made this a memorable evening.

The next day we left early for Wellwood. We received a hearty welcome from the Rubidge family, and a rather bright-eyed Bruce (either the effects of a milder Karoo sun, or else the prospects of imminent fatherhood!) joined us here. The Wellwood museum, combined with a very enthusiastic Bruce (fired up by the presence of students, he told me!) got the students into a palaeontological frenzy. Fossils were examined and tasks written up with gusto. True to Rubidge hospitality, cakes and tea were enjoyed afterwards by everyone. We left with baskets of oranges and naartjies for our next destination.

At De Toorn, meandering rivers, point bars, overbank deposits, levees and other sedimentological features achieved reality and significance as we scanned the panorama below us.

Bypassing Nieu Bethesda, we headed for the fish fossil site at Wilgerbosch. Plants and fish fossils were examined in situ and everyone agreed this place should be better looked after. Indiscriminate hacking of the fish fossils by previous visitors gives considerable cause for concern.

Lunch was enjoyed in the riverbed at Nieu Bethesda. This site is always exciting, but no new finds were made. The old fossils still in situ make this place an exciting outdoor museum.



The *Cistecephalus*-zone exposures at Steilkrans did not yield any *Cistecephalus* but many fragmentary remnants of previously removed fossils were seen.

Back at camp supper was devoured by a rather hungry and tired bunch of students. We thanked Bruce appropriately for the input he had made for the day, and after a farewell celebration he departed to Wellwood. Silence in camp soon gave way to a chorus of contented snoring.

The next morning we visited the Valley of Desolation. This place provides a spectacular panoramic view of Graaff-Reinet and the Camdeboo plains, as well as close up views of the magnificent dolerite pillars in the sill capping Spandau Kop.

Our last stop en route to Port Elizabeth was at the bridge crossing the Sundays River at Kirkwood. The Cretaceous exposures here have not received much attention in the past, and no doubt there is a wealth of fossils waiting to be found here. The discovery of an iguanodont tibia a few weeks earlier by Mike Raath encouraged all to look for more. Infernal weather and steep, slippery slopes produced only a few fragmentary pieces and a steady stream of students slowly making their way back to the bus. Heat and exhaustion having got the upper hand, we left for home.

The 1988 excursion was an enjoyable and enriching experience for all that participated. A final word of thanks to Mike and Bruce for their contribution.

Gideon Rossouw

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#### BOOK REVIEW:

*Fossil Conchostraca of the Southern Hemisphere and Continental Drift: Paleontology, Biostratigraphy and Dispersal.*

By Paul Tasch (1987). Geological Society of America, Memoir 165: 290pp.

This volume by Paul Tasch, Distinguished Professor Emeritus of the Wichita State University, Wichita, Kansas, set out to test whether there was acceptable independent evidence for continental proximity of the southern continents during Permian and Mesozoic times, based on non-marine dispersal of biota.

Using his beloved Conchostraca, which are generally freshwater and only occasionally brackish in their habitat preference, he tested for similarity in the faunas of the southern

continents. He points out that conchostracan taxonomy has been in a somewhat confused state for a long time because of a number of misconceptions by several students of fossil forms. The most important of these misconceptions relate to the distribution of individual taxa through space and geological time - many workers have mistakenly presumed that conchostracans cannot be widely distributed laterally, nor can they be long-lived in the geological record. Therefore, the degree of "endemism" allegedly reflected by faunal lists from different countries is very largely an artifact of incorrect taxonomy.

Tasch concludes that there is very good evidence of shared taxa among the southern continents, providing corroboration for the notion of continental proximity during Palaeozoic and Mesozoic times since their distribution is non-marine.

The Memoir is divided into major sections as follows: "

Introduction:

this deals with general matters of conchostracan taxonomy (including the misconceptions noted above), standardisation of shell measurements, and endemism in conchostraca;

Continental Overview of Gondwana Estheriids:

this section treats each southern continent separately, in alphabetical order, with greater attention focused on Antarctica than the others because of new information from that continent. Maps of fossil localities are provided for each continent;

Systematic Descriptions:

This is the real meat of the memoir, and this section accounts for 100 of its 290 pages. The continents are dealt with country-by-country, and South African forms are dealt with on pages 51 to 56. Tasch concludes that there are three valid genera represented in South Africa (including Lesotho): *Afrolimnadia* (new genus), *Cyzicus*, and *Leala*, which contain 6 valid species among them;

Paleozoic/Mesozoic Dispersal of Conchostracan Taxa in the Southern Continents:

This section discusses possible modes of dispersal of conchostracans, including dispersal of their eggs,

dispersal by wind, birds, and "Noah's Ark" (floating on drifting logs), etc; salinity tolerance; and comparisons of faunal lists among the southern continents to show similarities and differences in the conchostracan faunas.

A useful selection of photographs, details of measured sections, bibliography and comprehensive index rounds off a useful book.

I am grateful to Johan Looock for lending me his copy for this brief review.

M A Raath  
Port Elizabeth Museum

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### Letter to The Editor

Sir,

I wonder how many people who attended the Graaff-Reinet congress share my feeling that Burger Oelofsen may have (unwittingly, to be sure) helped us put our corporate foot in it with some of the good folk of that fair town who treated us so well?

It is my perception that a good many palaeontologists in this country are religious (this may make us fairly unique, I don't know), and of course we all know what is meant by fundamentalism/creationism, but do our lay audiences?

Before the conference I had been browsing through a book by Arthur Strahler, *Science and Earth History: the Evolution/Creation Controversy*, which sets out all the well-known arguments against creationism. (But when will people realise that Noah was a farmer, not a zoo-keeper?).

In view of the above, I was most interested in a review of Strahler's book which appeared in *Nature* (vol. 334, 18 August 1988: p 575), in which the reviewer - also a Professor of Geology - makes the point that in Judaeo-Christian terms, creationism is nothing less than heresy. It is worth reading. I suggest that a two-pronged attack on creationism is less liable to lead to misunderstanding and, thus, less likely to cause unnecessary and damaging offence.

Chris Gow,  
BPI (Palaeontology) Johannesburg

FIFTH GENERAL MEETING OF THE  
PALAEONTOLOGICAL SOCIETY OF SOUTHERN AFRICA  
HELD IN GRAAFF-REINET, 14 SEPTEMBER, 1988

*Due notice having been given, a General Meeting of the Society was convened in the auditorium of the Drosty Hotel on the afternoon of Wednesday, September 14, 1988.*

MINUTES

1. Present:

The Immediate Past President (Prof M A Raath), Hon Treasurer (Dr J van den Heever), Hon Secretary (Dr J F Thackeray), and about 35 other members of the PSSA.

2. Welcome: Prof Raath welcomed those present.

3. Apologies:

Apologies were received from S Groenewald, Dr B Oelofsen (President), W Smuts, and Prof J Visser.

4. Minutes of the Previous Meeting:

Copies of the Minutes of the Fourth General Meeting, held in Cape Town on 24 September 1986, were distributed. It was noted that one item had not been noted. This concerned a suitable photograph of the late Dr T Barry. The following was recorded as Minute No 12.11 (to supplement the previous Minutes as published in *PAL NEWS/PAL NUUS* 5:3-8):

*Minute No 12.11: "It was agreed that the Society would meet the costs of providing a suitable photograph of the late Dr Tom Barry, to hang in the Barry Auditorium of the South African Museum".*

The Minutes of the Fourth General Meeting were then approved.  
(Proposed by Dr Gow; seconded by B Newman).

5. Matters arising from the Minutes.

5.1 Liaison with the National Monuments Council. Dr Thackeray reported briefly on a meeting between members of the Executive Committee (Dr Oelofsen, Dr van den Heever, and Dr Thackeray) and the Director of the National Monuments Council (Dr Loedolff), on May 26, 1987. At that meeting, the problem of trading in fossils was discussed, and the need for more Honorary Curators was recognised. Dr Loedolff had requested that the Executive Committee send him, in writing, the names of persons who could be nominated as additional Honorary Curators. This had been done, and Dr Raath reported that he has now been appointed an Honorary Curator.

5.2. Illegal collecting/trading in fossils. Dr Raath drew attention to the fact that the National Monuments Council has limited staff, but museums could help this body. Dr Klinger suggested that it should be known publicly that trading in fossils is illegal. Dr van den Heever felt that no law would necessarily prevent people from trading in fossils, but the public would benefit from liaison with museums. Dr Raath noted that whenever he gave a public lecture on palaeontology, he always made it clear that collecting fossils was illegal without a permit; he encouraged other professional palaeontologists to do the same.

5.3. Liaison with the Mineralogical Society of South Africa. Dr van Dijk noted that fossils sometimes appeared in the items for sale at meetings of the Mineralogical Society. It was recommended that there should be close liaison between PSSA members who were also members of the Mineralogical Society; attention should be drawn to the fact that the sale of fossils is illegal. Dr Raath recommended that a pamphlet concerning fossils (and the illegality of the sale of fossil specimens) could be drawn up; it was agreed that the incoming Executive Committee should see to this.

5.4. Permits to export fossils. It was suggested that a small panel of members from the PSSA might be appointed, to act as impartial referees to consider applications to export fossil specimens for research purposes. Attention was drawn to delays in obtaining such permits. It was agreed that this matter should be taken up by members of the Executive Committee of the PSSA.

5.5 Time-stratigraphic column. It was reported that Dr Jurie van den Heever and Dr Johan Visser had accumulated material for the compilation of a time-stratigraphic column specifically applicable to South Africa, and that this matter is currently receiving attention.

5.6 Translation of the constitution of the PSSA. It was reported that the translation of the revised constitution of the Society, from English into Afrikaans, is progressing.

#### 6. Hon. Treasurer's Report.

Dr Jurie van den Heever presented the audited financial statement for the period 30 September 1987 - 31 August 1988. He noted that the Society was solvent, with a balance of R 872,95 as at 31 August 1988. Thanks were extended to Mr van Niekerk (accountant at the S A Museum) for auditing the Society's accounts, and for his willingness to continue this service without charge. Thanks were also extended to the Director of the South African Museum for allowing the PSSA accounts to be audited by the Museum's accountant.

Dr van den Heever stated that although the Society was still solvent, the current balance was insufficient to maintain the running of the Society. He drew particular attention to the fact that the cost of producing *PAL NEWS/PAL NUUS* had increased substantially. He felt the time had come for membership fees to be increased.

The Hon. Treasurer's report and the audited financial statements were adopted. (Proposed by B Newman; seconded by B Rubidge).

#### 7. Increasing Membership Fees.

After some discussion, it was agreed unanimously that membership fees be revised as follows:

Members: R20,00

Students: R10,00

#### 8. Hon. Editor's Report.

Dr Raath reported that the costs of producing *PAL NEWS/PAL NUUS* were greatly offset by the Port Elizabeth Museum (where the newsletter is currently typed and prepared for publication), and by the University of Port Elizabeth (through Dr Gideon Rossouw's contact with the Printing Dept at UPE). It was noted that the

total costs for producing 100 copies of the newsletter with 20 pages (A5-size) could now exceed R1200, if the newsletter were produced at current commercial rates. However, with services offered by the Port Elizabeth Museum and the UPE, actual costs were much less than this.

Dr Raath noted that he had experienced difficulty in obtaining material for publication in *PAL NEWS/PAL NUUS*, even though appeals for such material had always been distributed to all members. He appealed again for members to send him photographs, and any news on activities, discoveries etc.

In response to the appeal for material for *PAL NEWS/PAL NUUS*, Prof E Harley suggested that someone should be appointed to submit items of interest concerning recent publications in books and journals. H Klinger volunteered to do this.

Mrs Ann Cadman suggested that certain individuals at universities and museums might be appointed to cover news of activities at their respective institutions. Dr Raath recommended that PSSA members at universities and museums should appoint their own "spokespersons" who could relay news for inclusion in the newsletter.

The Hon. Editor's Report was adopted (Proposed by J van den Heever; seconded by B Rubidge).

#### 9. Election of office bearers.

In terms of the constitution, the Vice-President automatically succeeds to the Presidency and the retiring President becomes the Immediate Past President at the end of their respective terms of office. Consequently, Prof James Kitching is the new President for the period 1988-1990, and Dr B W Oelofsen becomes the Immediate Past President for the same period. The following office bearers were nominated for election:

Vice-President (1988-1990): Jurie van den Heever  
Honorary Secretary (1988-1990): Francis Thackeray  
Honorary Treasurer (1988-1990): Roger Smith  
Honorary Editor (1988-1990): Mike Raath

In the absence of any other nominations, the above were declared duly elected. (Proposed by B Newman; seconded by C Gow. Motion carried unanimously).

#### 10. General

10.1 Dr Raath announced that the Proceedings of the Fifth Biennial Conference would be published in *Palaeontologia africana*, in a special issue in honour of Prof James Kitching. Delegates were asked to submit two copies of their manuscripts to Dr Raath before November 1, 1988. Manuscripts would be reviewed by referees, and their comments relayed to the authors as soon as possible. Authors were asked to send the final text (with revisions, if necessary) to Dr Raath on IBM-compatible floppy disk, to facilitate publication.

10.2 Dr Cluver mentioned that a number of papers presented at the Fourth Biennial Conference of the PSSA, held in Cape Town in September 1986, had been submitted for publication in the *Annals of the South African Museum*. These had been sent out to referees. After some delays (slow responses from referees; late submission from authors), it was now felt that papers presented at the Fourth Biennial Meeting could be published in the

*Annals*, but not in a single volume. Instead, papers would be published as separate numbers, as and when they became available for publication.

10.3 Venue for the Sixth Biennial Conference and General Meeting: Consideration was given to the possibility of holding the Sixth Biennial Conference in South West Africa (possibly Windhoek, as suggested by Dr B Oelofsen). However, it was felt that Windhoek was too distant for most delegates.

A venue in Natal was also considered again. The Nature Reserve at Giants Castle had been suggested earlier by Dr E van Dijk, but the conference facilities at that venue were found to be unsuitable for the PSSA, as indicated in circulars distributed to all members prior to the Fifth Conference. A meeting at the Cathedral Peak Hotel (which does have adequate conference facilities) was considered, but this possibility was dropped on account of its distance from fossil localities.

It was recognised that a PSSA meeting had not yet been held in Natal. A meeting in that province would be appropriate at some stage. Giants Castle was a possibility, and Dr van Dijk was prepared to organize such a meeting at that venue, although he had moved recently from Pietermaritzburg to Stellenbosch. However, Bruce Rubidge stated that it was important for the organizers of the conference to be resident in the area where the conference was to be held; Prof Rust emphasised the need for adequate conference facilities. In the light of these considerations, the possibility of holding a conference at Giants Castle was shelved.

It was decided by majority vote that Golden Gate was a suitable venue for the Sixth Biennial Conference. The venue has good facilities for holding a conference, and there are numerous fossil localities in the vicinity. Gideon Groenewald (resident in the Nature Reserve) would set up an Organising Committee to make the necessary arrangements for the conference. A date of mid-September in 1990 was preferred.

10.4. Attention was drawn to the fact that certain books of palaeontological interest were being made available by publishers at greatly reduced cost. Dr J van den Heever would look into this matter.

10.5. Dr E van Dijk noted that a number of programmes on creationism had been aired on SATV. He had written to the SABC, and felt that as a matter of courtesy, they should inform the PSSA when such programmes would be aired. He would like to have transcriptions of such talks on radio or television. Prof Rust noted that the PSSA should be "proactive" rather than "reactive"; the PSSA should assist with the production of television and/or radio programmes. The possibility of contacting freelancing film-producers was considered.

10.6. Dr van Dijk noted that the 150th anniversary of Andrew Geddes Bain's discovery of fossils in the Karoo could have been commemorated publicly. Such events of palaeontological interest could be commemorated by means of special stamps or commemorative envelopes, but at least 3 years' notice would have to be given to the GPO.

10.7. Members of the PSSA were reminded that the Biostratigraphy Task Group of SACS (S A Committee for Stratigraphy) is anxious to publish the

results of biostratigraphic research; contributions can be sent to Colin MacRae at the Geological Survey in Pretoria. Colin can give members information on the format for publication. Authors can be remunerated for their contributions.

10.8. Dr Raath drew attention to the need for greater coordination of palaeontological research, bearing in mind the pending changes in distribution of funds administered by the FRD (Foundation for Research Development). Dr Raath recommended the formation of "working groups", involving individuals working on common problems, even if in different institutions. Roger Smith reported that he was already working on the formation of a "Karoo Working Group", and he was encouraged to continue, in collaboration with Jurie van den Heever and Bruce Rubidge.

#### 11. Acknowledgments.

Persons and institutions listed at the end of the Programme of the Fifth Biennial Meeting were thanked for their contributions towards the success of the conference. The list includes the staff and management of the Drostyd Hotel, notably Mrs E Pringle and Mr D W Mulder; the Mayor and Town Clerk of Graaff-Reinet; T Whitlock of the Publicity Association in Graaff-Reinet; Richard, Robert and Marian Rubidge, who had welcomed the delegates on the farm Wellwood, where a magnificent braai had been provided; Jaqui Blaeske; Clive Booth; Bruce Hunter; Cedric Hunter; John Lanham; Piet Pistorius; Marina Rubidge; Anne Thackeray; SANLAM; South African Breweries.

Francis Thackeray was singled out for special thanks for his outstanding efforts in organising what had arguably been the best PSSA conference to date. The meeting was closed at 4:30 p.m.

*(Secretary's Note: These minutes are unconfirmed. Members who disagree with them as an accurate record of the meeting are invited to transmit their comments, amendments, objections to the Hon Secretary by letter).*

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## STOP PRESS

*Congratulations to Bruce and Marina Rubidge on the birth of Sidney Richard. (I told Bruce they should have called him DONALD, so that it could have been "abbreviated" to "Eodicyno-DON". But he wouldn't listen!)*

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MERRY CHRISTMAS TO ALL, AND BEST WISHES FOR 1989!

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