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PAL NEWS NUUS

Biannual Newsletter of the Palaeontological Society of Southern Africa
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July/Julie 1989



(See Letters, page 28)

PAL News
PAL Nuus

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Jul 1989

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PAL News/PAL Nuus is published by the Palaeontological Society of Southern Africa on behalf of its members. The views expressed are not necessarily those of the Society or its Officers.

Editor:

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EDITORIAL: The NMC Reshapes Itself

Several changes have taken place in the National Monuments Council recently, some of which have a direct bearing on the interests of our Association. As most members will know, Mr George Hofmeyr was appointed Director in August 1988. A further interesting development was the appointment of Dr Janette Deacon to the staff as Archaeologist in the Professional and Technical Division, where she is now in charge of the permit system, among other duties. The Council has Regional Representatives throughout the country, and I thought it would be useful for members to know who they are:

Northern Cape: Mr A C Lillie - phone (0531) 81-2537

Western Cape: Miss H du Preez - phone (021) 23-6310

Eastern Cape: Mr J McConnachie - (0461) 2-4615

Natal: Mr C J H Kruger - (031) 23-2248

OFS: Miss H Gous - (051) 30-4139

Transvaal: Miss M Stratford - (012) 322-6480/1

Namibia National Monuments: Miss V B Geleijnse - (061) 29-3456

A further development is the appointment of a whole new Council as from July 1st. I understand the names are not publicly known yet as they have yet to be gazetted.

The Council has asked some of its members to act as liaison officers between the Council and organisations with which it interacts. In the case of the palaeontological community, the liaison person is our colleague Johan Looock of the Geology Department at the University of the OFS. It seems with these changes and the new approach to the identification, grading and protection of sites of importance, the NMC is trying hard to fulfil its obligations in terms of its all-embracing Act. They deserve our co-operation.

I am sure we all wish George Hofmeyr and his team every success in their important but daunting task.

Mike Raath
Editor

NEWS FROM THE SECRETARY

On April 26 this year Jurie van den Heever and Francis Thackeray held a meeting with Ms Ingrid Coetzee of the Department of Environment Affairs, in connection with the need to improve public awareness on matters of palaeontological interest (this issue was raised at the last BGM of the PSSA held in Graaff-Reinet). One possibility that has emerged is that "Fossils" could be theme for a poster for an Environment Day, in a year for which a theme has not as yet been allocated (1991 or later). Such a poster could be distributed to schools and public places.

Also at that meeting with Ms Coetzee, attention was drawn to draft legislation under Bill 60. This Bill concerns, inter alia, the need for impact statements before development can be permitted in areas which may or may not be of palaeontological importance. Ms Coetzee recommended that a list of professional palaeontologists be drawn up, for purposes of being distributed to various organisations such as municipalities, regional services councils, etc., that might need to contact palaeontologists for advice. The list is being drawn up at the moment.

We have been asked to offer suggestions about the grading of sites of palaeontological importance. Should one, for example, grade sites on an arbitrary scale between 1 and 5, and if so, what criteria should one use to grade a site/locality? If there is any member of the PSSA who would like to comment or offer suggestions, please write to Francis Thackeray, c/o Department of Archaeology, University of Cape Town, Rondebosch 7700.

A four-part documentary series produced by David Attenborough for television ("Lost Worlds, Vanished Lives") was screened at Cannes recently. In the wake of Attenborough's highly successful "Living Planet" series, this new series on fossils has been highly recommended. Efforts are being made to have the series shown on SATV. It has also been suggested that a 40 minute programme dealing specifically with fossils in southern Africa, be produced - that might be broadcast at about the same time as the Attenborough series. Such a programme could serve to promote public awareness of fossils in this country. Members of the Executive Committee of the PSSA are liaising with SATV in this connection.

Francis Thackeray

PSSA CONFERENCE - 1990: GOLDEN GATE

Gideon Groenewald, our Man-on-the-Spot, has sent the following report from our chosen venue for PSSA 1990, Golden Gate Highlands National Park:

Slowly but surely things are beginning to fall into place for the 1990 PSSA Conference and members who have answered the First Circular are thanked for their quick response.

After a few boxes of chocolates, I managed to book the Wilgenhof Youth Hostel for the occasion. The fact that the hostel is used for school groups during the week will force us to move the planned dates for the conference to fall on the weekend of 7, 8 and 9 September, 1990. Accommodation in this complex is at the moment R10,50 per adult per night (R8,50 for kiddies) and we can have our meals at R20,00 per day. Please note that there will probably be an increase of 15% next year.

The complex consists of a lecture hall and two dormitories with 40 beds each, divided into cubicles of four beds each. You need no bedding, as everything is provided. (Everything???)

No block bookings will be made for Brandwag or any other rest camp, so those who prefer not to stay at Wilgenhof must please book for themselves at the National Parks Board head-office in Pretoria.

I have asked permission for 20 people to stay in an old farm house in the Memel area during the planned two-day excursion, so that will not cost us too much (unless the thirsty get too thirsty!!). The planned excursion will take place on the Monday and Tuesday (10th and 11th Sept.).

Greetings from Golden Gate!

Gideon Groenewald

CARBON ISOTOPE RATIOS AND GROWTH INCREMENTS IN *DIICTODON* TEETH

by

Francis Thackeray,

Archaeometry Laboratory, University of Cape Town, Rondebosch 7700.

The ratio of two carbon isotopes (^{12}C and ^{13}C) has been measured in a number of *Diictodon* teeth from Permian deposits in the Karoo. This pilot study was undertaken in order to determine what changes, if any, could be found in a sequence of samples from different Assemblage Zones.

The samples were obtained from existing collections in the South African Museum and the Geological Survey. Andre Keyser and Roger Smith selected specimens which could be analysed by means of a method developed by Julie Lee-Thorp of the Archaeometry Laboratory at UCT.

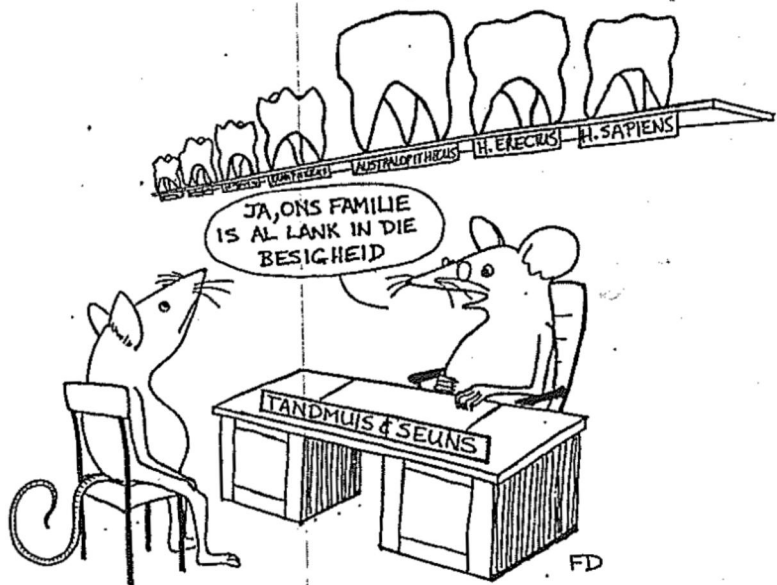
Expressed relative to an internationally recognised standard (PDB), the carbon isotope ratios obtained from *Diictodon* teeth range between -7 and -17 ‰. There appears to be a general trend in the direction of more negative values through the Permian sequence for which samples have been analysed thus far. Samples from the *Tropidostoma/Endothiodon* Assemblage Zone are isotopically more positive than those from the younger *Dicynodon lacerticeps/Whaitsia* Assemblage Zone. Specimens from the *Aulacephalodon/Cistecephalus* Assemblage Zone have intermediate values.

Is the observed decline in the carbon isotope ratio attributable to environmental change? This possibility is of particular interest in relation to the problem of identifying factors contributing to extinctions at the end of the Permian. Additional samples of *Diictodon* are currently being prepared in order to address this problem. It is hoped that the pilot study can be extended to include other taxa and other time periods.

Apart from measuring carbon isotope ratios in *Diictodon* teeth, attention has also been directed at interesting growth increments which were detected in sectioned, polished specimens before isotopic analysis was begun (Fig. 1). These growth increments are generally about 0.02 mm in width. Under 100x magnification and an appropriate angle of polarisation (using a Polyvar microscope in the Archaeometry lab), these increments can be seen in most specimens. Similar increments have been found in a sectioned crocodile tooth which Jenny Jarvis of the Zoology

Department at UCT kindly donated for purposes of comparison with the *Diictodon* specimens. Remarkably, the average width of growth increments in that crocodile tooth is also approximately 0.02 mm.

It is yet to be determined whether or not the structures seen in *Diictodon* teeth correspond to daily rather than to seasonal growth increments. Although there is some colour variation in the bands observed under the microscope, there is no clear patterning in incremental width that necessarily suggests seasonal variation such as that found in tree rings. Comparison with teeth from other taxa will be interesting in relation to the physiology of the animals concerned. Combined with isotopic data, will it be possible to use growth increments to identify animals that had a physiological advantage over others during periods of environmental change? This is only one of many questions that have arisen in the course of analysing *Diictodon* teeth.



THE PRETORIA SALTPAN

by

Louis Scott

Dept of Botany, Univ. of the OFS, Bloemfontein

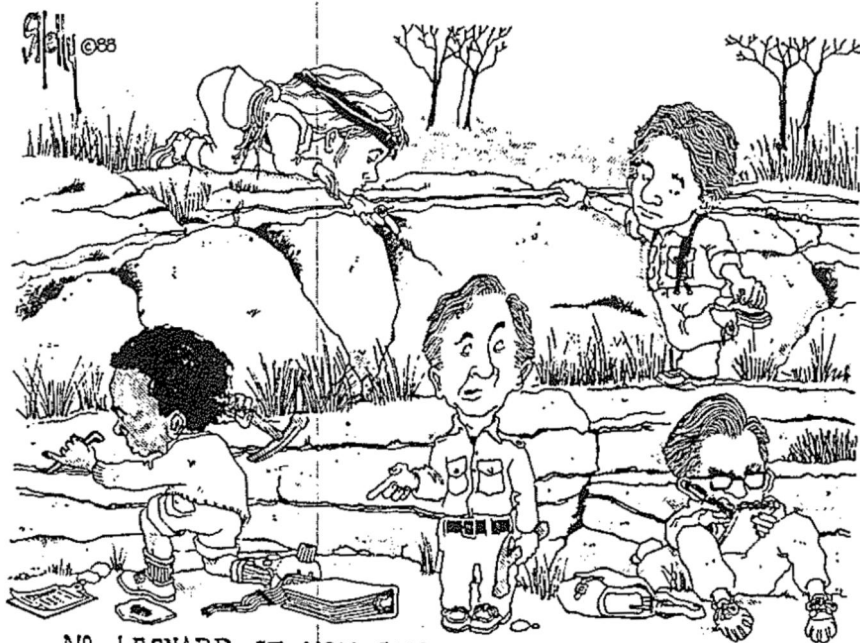
Continuous sediment sequences with palaeoenvironmental information in Southern Africa are very scarce. A new source of such information has been found in the Pretoria Saltpan (Wagner, 1922; Scott, 1988). This feature 40 km north of Pretoria comprises an impressive circular crater of ca. 1 km width, filled with at least 170 m of saline lake sediment. The crater is probably of volcanic origin, but final proof is needed to show that it was not formed by a meteor impact. A project to obtain a continuous sediment core from the crater, and to determine its origin, has been launched by T C Partridge (Transvaal Museum), L Scott (Univ. of the OFS), and the Geological Survey (Pretoria). Coring is in progress, nearing completion.

Pollen, charcoal, diatoms, phytoliths, other microfossils in the sediments, and sedimentological and isotope data of the core should provide a wealth of palaeoenvironmental information about the Late Quaternary in the Transvaal. It is anticipated that the various types of microfossils in the sediments may establish a reliable palaeoenvironmental record. Diatoms will provide an indication of changes in water quality in the crater during the Quaternary, while microscopic charcoal may shed light on the fire history, revealing the activities of prehistoric humans in the area. Phytoliths in the sediments can be very useful in the assessment of changes in the grass cover of the savannah bushveld north of Pretoria, while pollen will reflect other aspects of vegetation and climatic change in the region. Preliminary pollen and diatom analyses of exploratory borehole samples by L Scott and S E Metcalfe (UK) respectively, show good potential; radiocarbon dating by J C Vogel (CSIR) suggests that the upper three metres represent the accumulation in the pan over 6000 years. On the basis of this sedimentation rate, it can be expected that the bottom of the sequence may be as old as 100 000 years, or more. A new palaeoenvironmental record of this length for southern Africa will be invaluable. Dating of the explosive event which formed the crater and initiated sediment accumulation may pose a problem, but volcanic material which is hopefully available below the crater can potentially be used for Potassium/Argon dating.

A team of specialists has been formed to study different aspects of the core, but material will also be available for future research.

References

- Scott, L. 1988. The Pretoria Saltpan: a unique source of Quaternary palaeoenvironmental information. *S. Afr. J. Sci.*, 84: 560 - 562.
- Wagner, P A. 1922. The Pretoria Salt-Pan, a soda caldera. *S. Afr. Geological Survey Memoir*, 20: 1 - 136.



NO, LEONARD, IF YOU CAN WIPE IT OFF YOUR BOOT
IT PROBABLY ISN'T A COPROLITE JUST YET!

For "Leonard" read "Roger!"
(See page 13)

Journal of Geological Education, 1989, v. 37, p. 29

REMINISCING ON THE 3RD IOP CONGRESS,
MELBOURNE, 24-26 AUGUST, 1988

by

Heidi Anderson

Botanical Research Institute, Pretoria

On the first evening at the university I was really impressed with an Australian male bent over backwards doing his laundry. Imagine my surprise when this guy turns out to be Colin MacRae! Hoorah, he finally had his visa and was in time to read Eva Endrödy's paper "On the validity of global chronostratigraphic correlations of terrestrial assemblages based on marine faunas". Colin and I exchanged notes on our respective field trips. He was rather rained out in central Victoria looking at Tertiary angiosperms while I admired similar ones in Tasmania (plus their modern counterparts), and visited a Molteno-equivalent locality where umbrellas featured more than fossils.

Somewhat belatedly, I arrived at registration. It was friendly chaos. Between mouthfuls of cheese and wine I was introduced to Prof. Harlan Banks (my Chairman and of Devonian fame; at a dinner speech he told us he was of course also related to the famous Banks, grandfather of Australian Botany). Many other names from the literature became alive, and familiar faces beamed Hello. Some 160 palaeobotanists were there; well represented were Japan, India, USA, Netherlands, besides the Australians. We were even honoured with a Russian, Prof. Krassilov, who spoke English with great clarity - unlike some Americans.

Back in the spartan Queen's College room I turned on the heater and had goose pimples thinking about how my lecture on "The Gymnosperms of the Triassic Austral (Gondwana) Flora" would go down with all those big-shots. I had the honour of being one of five speakers selected for the keynote Symposium. Well, it was comforting to know that John Anderson's and my work on the Palaeoflora of South Africa was getting some international recognition.

The following three days were filled with lectures in tandem, and much scurrying to and fro. Most of us were trying to be in two places at the same time. I wanted to hear more about the early angiosperm floras of which Australia has a good record from the Cretaceous to the Tertiary. There were invariably clashes. But imagine my embarrassment when, in the rush of a

swop-over, I ended up in the Gents! (The Ladies was in the identical position, but one floor down!)

All too soon it was the closing session, with a big cheer for Dr Jack Douglas, and a poem of appreciation for all his hard work. It was announced that the Fourth IOP would be in Paris in 1992 (this explained the notable absence of the French at the Third). As a final treat, Jack took a bus-load of enthusiasts to a *Baragwanathia* site on the Saturday. A beautiful drive up into the hills with lush tree ferns and towering gums. Sorry to end on a damp note - it rained!

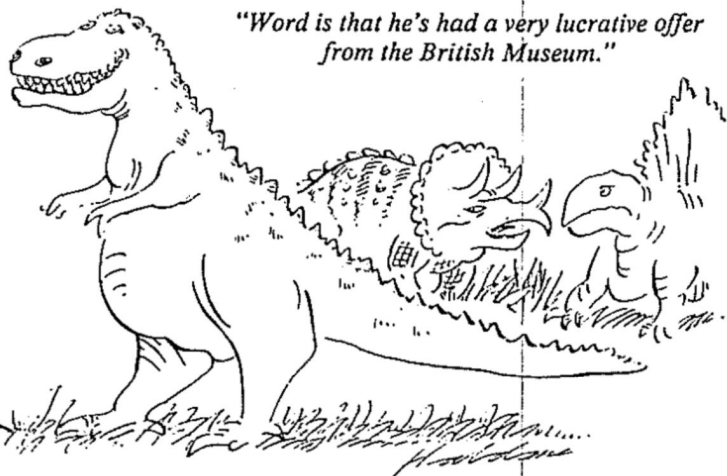
P.S. A big Thank You goes to my father, who sponsored my attendance at this congress and a two-month study trip of Australian Triassic fossils.



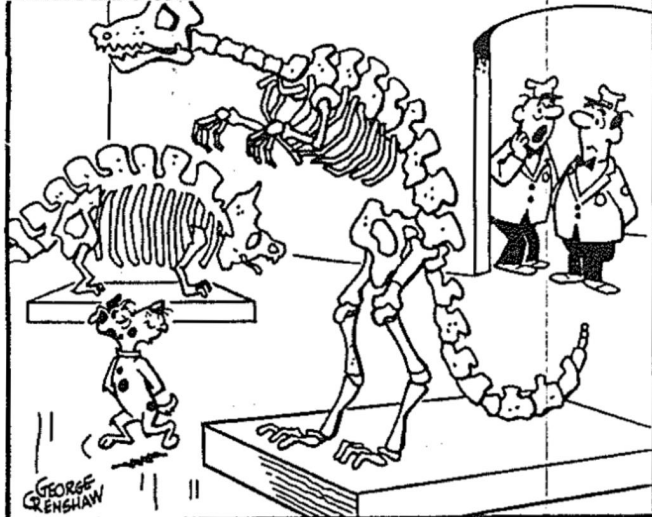
FOR THE YOUNG GENERATION: READ VAN VALEN'S RED QUEEN HYPOTHESIS
FOR THE OLDER GENERATION: VAN HALEN IS A ROCK BAND

(Original by Francois Durand)

*"Word is that he's had a very lucrative offer
from the British Museum."*



BELVEDERE



'Watch out for him. He asked for a menu.'

NEWS FROM MEMBERS

Friedemann Schrenk (Hessisches Landesmuseum, Darmstadt, W Germany):

(Friedemann's report came in too late for the last issue at the end of last year, but I thought some members would be interested to hear his news, especially since his new appointment to the museum in Darmstadt. His full address is:

Dr Friedemann Schrenk, Hessisches Landesmuseum, Friedensplatz 1, 6100 Darmstadt, W Germany.

We congratulate him and wish him well in his new appointment. Ed.)

My current palaeontological work includes:

Plio-Pleistocene vertebrates of northern Malawi;

Eocene vertebrates of the Messel Oil Shale (Grube Messel), especially crocodiles;

Skull development of African hystricomorph rodents and of crocodiles;

Ice Age mammals of the Rhine River Gravels.

In 1988 I conducted field excavations at Grube Messel (near Darmstadt), and in the Chiwondo Beds of northern Malawi.

Members might be interested to know that on 23 November 1988 the Supreme Court in Kassel finally stopped the Grube Messel garbage-dump project. Grube Messel will now remain a fossil locality. Extremely valuable in the whole process was the support of palaeontologists from all over the world, including PSSA members.

Colleagues who want to visit the site should write to me in advance for permits.

Rupert Wild (Staatliches Museum für Naturkunde, Stuttgart):

(Rupert's contribution also came in too late for the last issue, but I think many will be interested, so I am including it. Ed.)

I have working on pterosaurs and a redescription of *Protorosaurus*; also involved with new thecodontian and prolacertilian reptiles from the Triassic of Italy, and preparing a publication on a Triassic eolacertilian.

The new finds of Upper Triassic pterosaurs include a new crested genus, which shows that even as early as the Triassic there was a high degree of diversity in this group.

One additional remark: I can now confirm that Chris Gow's opinion of the prolacertilians as parathecodonts is correct, and my opinion is not! (through redescription of *Protorosaurus* based on a new find).

Gideon Groenewald, Golden Gate Hoogland Nasionale Park:

(Artikel oorspronklik aan die Nasionale Parke tydskrif *Custos* ingestuur).

"Oom Gideon, kyk wat het ons gekry!"

Onwillekeurig dink mens aan klein half dooie voeltjies, reuse brulpaddas, slakke, spinnekoppe, of enigiets wat lewendig is of was of dalk kan wees.

Wel, wat die "wat lewendig was" betref, was ek reg, maar vir res van die storie moet u maar self oordeel.

Op Vrydag 7 April 1989 het Jaco en Rachel Erasmus, onderskeidelik 8 en 6 jaar oud, my bygeloop met 'n paar stukkies klip wat hulle in die Golden Gate Hoogland Nasionale Park opgetel het. Ek het die klippe dadelik as moddersteen (versteende modder) geëien, maar tot my verbasing het die kinders aan my getoon dat daar meer is as net klip. Die moddersteen, wat grys van kleur is, het duidelike voorbeelde van varingagtige blaarafdrukke bevat. Dit is die eerste keer wat ek van weet dat fossiele blare in die Parkgebied ontdek is.

Die versteende blare het behoort aan die bekende oerplante *Dicroidium* sp., asook *Taeniopteris* sp., wat kenmerkend gevind word in oer omgewings wat as vlei-agtig beskou word.

Die fossiele is gevind in 'n baie klein gebied van 2m by 4m en kortliks dui die geologie daarop dat daar 'n klein pannetjie was, wat toegespoel het met sand uit 'n redelike groot rivier. Die rivier was tot soveel as twee tot drie meter diep. Die klippe waarin die fossiele gekry is, is deel van die Elliot Formasie van die Karoo Opeenvolging.

Fossiele oorblyfsels van *Dicroidium* sp. is bekend uit die gesteentes van Suid-Afrika wat jonger as 220 miljoen jaar is, en hierdie plante het so welig in die omgewing waar Molteno gelee is, gegroei, dat daar selfs steenkoolafsettings gevorm het. Fossiele van dieselfde plante is al naby Bethlehem gevind, maar hierdie vonds is die eerste in die Park.

Alhoewel die vind van hierdie plantfossiele nie paleontologies uniek is nie, is dit tog goed om te weet dat Jaco en Rachel nie hoef terug te staan vir ander wanneer dit by fossielsoek kom nie!

Julia Lee-Thorp (Archaeometry Lab., Univ. of Cape Town):

I am currently analysing faunal material from Equus Cave in the northern Cape. The aim of this study of carbon isotopes in apatite from tooth enamel is to obtain palaeoenvironmental information regarding possible shifts of "C3" versus "C4" vegetation in the Late Pleistocene.

Having measured the ratio of two isotopes of carbon (^{13}C and ^{12}C) in fossil tooth enamel, I have been able to successfully distinguish between the diets of two extinct baboon species (*Theropithecus darti* and *Papio robinsoni*) represented in the Member 1 formation at Swartkrans Cave (dated around 1,8 myr). The results of this project will be published in the *Journal of Human Evolution* shortly. The development and application of the method used in this study is the subject of my PhD thesis, recently awarded at the University of Cape Town.

(Congratulations on your PhD. Ed.)

South African Museum

Roger Smith:

This year's research to date has concentrated on compiling a thesis of the past five years' work on fluvial facies, vertebrate taphonomy and palaeosols of the Teekloof Formation. This will be submitted to UCT later this year. A paper on Lower Beaufort palaeosols and a contribution to the IGCP245 publication *Continental Deposits of Africa* are in press, and a paper on trace fossils of the Lower Beaufort is destined for the new journal *Ichnos*.

Many thanks to James Kitching for donating his collection of Karoo coprolites for me to study - there are some real beauties among them! I'd also like to express appreciation to Eva Endrödy for the genuine Alaskan moose turds that she sent for my comparative collection.

The department is preparing for the imminent arrival of Dr Gillian King from Oxford, who is to join us in July. On behalf of the PSSA members I'd like to bid her welcome to South Africa and best wishes for the future.

In January Dr Andy Duncan and I delivered a course of five lectures at the UCT Summer School entitled "The Life and Times of the Ancient Karoo". It was well attended by 435 registrants and gained favourable reviews. The Friends of the Museum are planning their own summer school at the end of the year, when a

similar course will be followed by a week-long field excursion.

In February Mike Cluver, Annelise Crean, Paul October and myself joined forces with Bruce Rubidge and his Bloemfontein team to search for dinocephalians near Prince Albert. Bruce's brithopod was the star fossil, although Annie's gorgonopsian came a close second. Unfortunately, dinocephalian skeletons proved to be particularly scarce.

We continued to search in the Beaufort West area with little success, until, on the eleventh day, our luck changed! Essau, an assistant game ranger we had co-opted from the Karoo National Park, came across a partially exposed skeleton. After two days of hammering we had uncovered two complete *Pristerognathus* skeletons.

Running short of time, we laboured on to lift one of the specimens (nicknamed "Butch"), with the help of a box of plaster bandages from the hospital casualty department.

Back in the lab, preparation has already begun and we were delighted to discover a small *Diictodon* skull lying on the same slab. The second skeleton (nicknamed "Mike") will be lifted in November.

The Karoo National Park's "fossil trail" that we've been working on for a few years was officially opened in March.

As for the rest of the year, I'm looking forward to the Fluvial Sedimentology Conference in Barcelona in October and to spending a week or so on an excursion to look at successive fluvial sequences infilling the foreland basins of the Pyrenees.

November is booked for the field. Bruce Rubidge, Mike de Wit and I plan a backpack hike down the Leeuw River to view, analyse and interpret the superb exposures of Teekloof Fm. strata. We also plan to rope Mike Cluver into spending some time with us searching for *Diictodon* "nests", and *Cistecephalus* burrows in selected localities in the Beaufort West district.

(As we have come to expect, another report full of interest from Roger. Clearly, with his fixation and fascination with coprolites, he is head-and-shoulders above the rest of us as a "palaeo-scatologist"! Maybe, when you study that sort of thing, you'd better be sure that your head and shoulders do stick out!! Ed.)

Richard Dingle:

I have recently joined the Museum staff, where I will be head of the newly established Micropalaeontology Research Unit. *(Richard was previously Professor of Marine Geoscience at UCT. Ed.)*

The new S A Museum unit will initially consist of two scientists (Anton Scholtz and myself) and four technical assistants. Between us we will cover two broad areas: calcareous microfossils and terrestrial palynology. It is hoped to expand the capabilities of the unit during the next few years to include siliceous microfossils, and to expand the palynological facility.

Our work will include: fundamental research in areas such as biostratigraphy, palaeo-climatology and -oceanography, and taxonomy; the establishment of reference and comparative collections of a wide range of microfossil material relevant to southern Africa; and collaboration with industry through consultancy and applied research.

We are based on the third floor of the new SAM research building, and our telephone number is 24-3330.

(Welcome back among us, Richard. Ed.)

Nasionale Museum, Bloemfontein

Patrick Bender:

My MSc thesis concerning the Suidae of the Makapansgat Limeworks is nearing completion. This study deals with the entire fossil suid collection and includes a revision of the taxonomy and phylogeny of *Potamochoeroides shawi* (which is found to be distinct from *Metridiochoerus shawi*), and the examination and discussion of the taphonomy and palaeoecology of the two fossil suid genera *Potamochoeroides* and *Notochoerus*. Indications are that *Potamochoeroides* is more primitive and possibly older than previously considered. Since a *Potamochoeroides* specimen was found in close association with a hominid (*Australopithecus africanus*) specimen, the inference is that *Australopithecus africanus* may be older than considered in a number of more recent research articles.

James Brink:

Joris Peters from Munich University and I are doing a project on the osteomorphological distinction between the grey rhebuck, *Pelea capreolus*, and the Springbok, *Antidorcas marsupialis*. We are looking at the postcranial skeleton only. From preliminary observations it seems that the two species differ quite markedly on various bodyparts.

Apart from this I am analyzing the mammal remains from the

recent excavations at Klasies River Mouth Caves, which I hope to compare with those from Florisbad.

We are continuing with excavations at Florisbad. The further exposure of a Middle Stone Age horizon is in progress, and the third test cutting is producing more MSA artefacts and animal remains.

Prof. Angela von den Driesch, from the Institute for Palaeoanatomie, University of Munich, will be visiting South Africa from August 4th to September 15th. She intends studying the fish material from Klasies River Mouth.

Johann Welman:

I am still very busy with the project on the evolution of the skull and jaw muscles of the early Archosaurs. Recently I have joined Jim Clark and others in a paper on the appearance of the laterosphenoid ossification in the phylogeny of the Archosaurs.

In February I undertook a 10-day field trip in the company of Prof. James Kitching and Prof. Steve Fourie, into the Stormberg east of Jamestown. The trip was a great success, despite the 500 mm of rain that fell! Some cynodont, and a variety of dinosaur material was collected, including material of an Ornithischian. I greatly benefitted from the experience of professors Kitching and Fourie, and want to thank them very much for it.

Dr Bruce Rubidge:

My current work includes geological, palaeoenvironmental and biostratigraphic research on the rocks of the Ecca-Beaufort contact in the southern Karoo, and the description of the therapsid fauna from this zone. This includes *Eodicynodon*, a new genus of tapinocephaline dinocephalian, a new venjukoviamorph anomodont, and a possible brithopodid. I am presently preparing postcranial material of the dinocephalian as well as *Eodicynodon* for description.

In February, Patrick Bender, John Nyaphuli and I joined forces with Roger Smith, Mike Cluver, Annelise Crean, and Paul October on a field trip to the Tap Zone in the Prince Albert district with the aim of looking for dinocephalians. They were as elusive as ever, leaving only traces of "big bone" around the place - just enough to prevent one from despairing! Anyhow, at the end of the trip a nice *Anteosaurus* skull, a rather weathered

"dromasaur", a few gorgon skulls and many "dassies"* found their way back to the Free State.

During March the same crew from the National Museum spent two weeks on the rocks of the Ecce-Beaufort contact south of Cookhouse. In this area not only are fossils few and far between, but outcrops, too. Despite these problems, we did manage to find a few dicynodonts and a gorgon. We are presently preparing one of the dicynodonts and it does not appear to be *Eodicynodon*, as we would have expected to find.

(*for the uninitiated, this refers to small endothiodontids/ dicynodonts - the therapsid equivalents of "LBJs" to "twitchers" and other ornithologists. Ed)

Burger Oelofsen (SWA/Namibia):

Mesosaurus is well and fossilised up in the north of Namibia. Some German students working near Doros discovered a number of new localities to the west of Doros, and Dr John Ward found a reference in a thesis from Wits University of the early 50s that *Mesosaurus* was reported also from west of the Brandberg. I will probably visit the localities with the geologists.

BPI (Palaeontology), University of the Witwatersrand Heidi Fourie:

I am currently busy with an MSc. The project is a continuation of the research done last year in my Honours project. I will assess the taxonomic status of the dicynodont genus *Palemydops* and then proceed to compare *Palemydops*, *Pristerodon*, and *Emydops* with other contemporary, small endothiodonts. The characters of the secondary palate in *Palemydops*, *Pristerodon* and *Emydops* will be reviewed and sexual dimorphism and ontogenetic variations will be considered during the study. Invaluable information will become available with the aid of serial sections of *Pristerodon* made by Dr Barry in 1967.

It already seems possible to place *Palemydops* as a synonym of *Emydops*.

Anusuya Chinsamy-Moodley:

At the Conference last year my paper concentrated only on the descriptive aspect of my study of the bone histology of *Syntarsus*, so I decided to take this opportunity to give a short report on the quantitative aspect of the research that I had conducted. This involved the quantitative analysis of bone

vascularity using computerised Image Analysis. The assumption was made that the number, shape and size of the cavities examined is an indication of the number, shape and size of the blood vessels that were once present. The Image Analyser was used for precise calculation of parameters such as area, perimeter and shape of these cavities.

The "vascularity", or rather the porosity percentages obtained, reinforced the histological findings that the periphery is more poorly vascularised than the central region of the cortex. The perimedullary region is also vascularised because of the presence of circumferentially lamellated bone. Thus, the region showing the highest percentage porosity is the central cortex which can be ascribed to the bone that was deposited when the animal was actively growing.

The ratio of the area and perimeter readings gave an indication of the contact surface for the exchange of metabolites and nutrients. It was found that *Syntarsus* results fell in between the extremes for the crocodile, where large areas and small perimeters were the case, and the bird, where small areas and large perimeters occurred. There also appeared to be no obvious differences in these parameters for the juveniles, sub-adults and adults of *Syntarsus*.

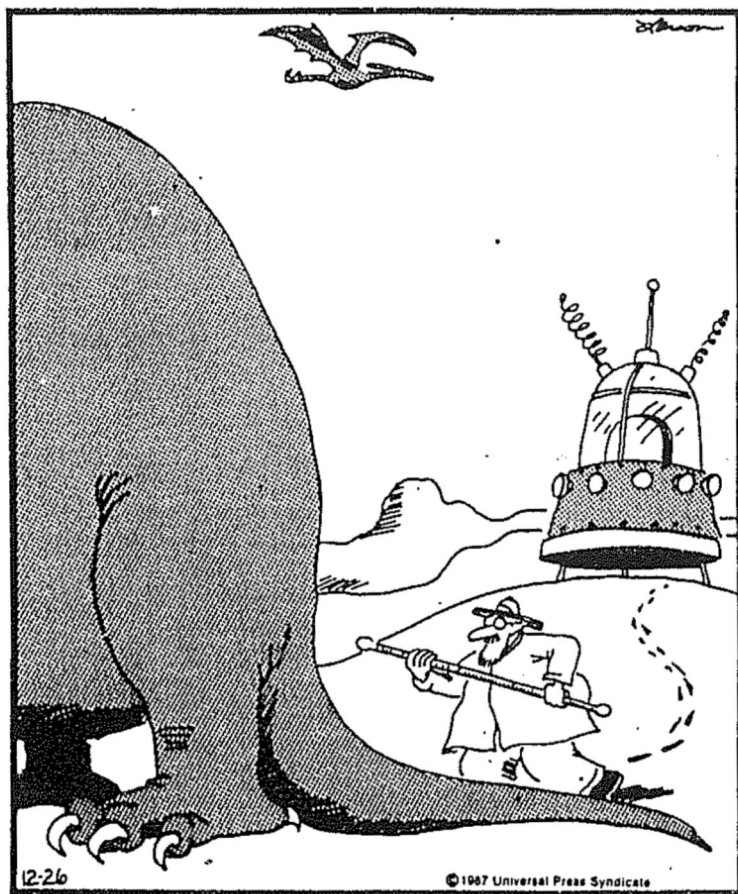
Form analysis showed that in both juveniles and adults the shape of the vascular canals is highly variable. This meant that longitudinal, circumferential and radial vascular canals occurred in bones of juveniles and adults without any predominance of a particular shape.

I would like to emphasise that, in my opinion, the Image Analyser is the best and most advanced method to date that can be used for the quantitative analysis of structures of this kind, and that its use in palaeohistology is merely a beginning with tremendous potential.

Dr Chris Gow:

I have just prepared a *Massetognathus* skull. It's nice to see that the braincase fits well with the rest of the "gomphodonts". Five manuscripts are in limbo at present.

Recently I was asked to check out a cave in the Blaaubank Valley as a potential tourist attraction; 20 m journey through a hole in the roof by cage and tractor-operated cable. There are nice formations and the skeleton of a baboon that tried it without the mechanical aids! Incredibly, the lime-miners of the 30s had



An instant later, both Professor Waxman and his time machine are obliterated, leaving the cold-blooded/warm-blooded dinosaur debate still unresolved.

been in, but fortunately gave up before doing too much damage.

Niles Eldredge has a new Penguin out called *Life Pulses - Episodes from the story of the fossil record*. It is 245 pp long, and in my opinion is the best book of its kind for the enquiring layperson, and essential reading for professionals.

Dr Arthur Cruickshank (Open University and Hinckley, Leicestershire):

My current palaeontological work includes:

(with Mike Taylor of Leicester University) the relationships of lower Liassic plesiosaurs and middle and upper Jurassic plesiosauroids from Europe; in conjunction with Dave Marfill of the Open University, "Aktuelle palaontologie" - modes of preservation as seen by decomposition of modern material in simulated marine environments; otherwise the Ruhuhu work is at a pause. There are not enough hours in the day or week!

Remember the 37th Symposium of Vertebrate Palaeontology and Comparative Anatomy at Leicester in September 1989; the 38th Symposium will be at the Open University in 1990.

Dr Norton Hiller (Rhodes University):

Some people might not regard my current research as being strictly palaeontological. Because they are largely overlooked by zoologists, even extant brachiopods are studied by palaeontologists, and I am presently investigating the southern African Recent brachiopod fauna. However, part of the work will be to consider the origin of the present species and so I must look at the late Tertiary and early Quaternary brachiopods of this region. If anyone has information on Tertiary-Recent brachiopods in South Africa, Namibia and Mocambique, I would appreciate them passing same onto me.

Opportunities for field work have been severely limited by teaching commitments in the first half of the year. However, the one collecting trip we did manage was something of a fishing expedition. For some years a number of us in the geology dept. have been studying the structure and sedimentology of the Witteberg Group rocks around Grahamstown. During the course of this work we turned up a few fish scales at one locality, so we mounted an expedition to try to find more of the fish. We were moderately successful in that we turned up lots more scales, but how much more of the beast we found we do not know at this

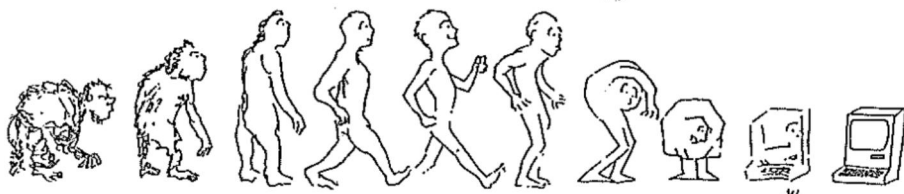
stage as we have not had the opportunity to develop the material further.

Latest publication: Hiller, N and Theron, J N (1989). Benthic communities in the South African Devonian. In McMillan, N J, Embry, A F and Glass, D J (eds), *Devonian of the World*, Memoir 14, Canadian Society of Petroleum Geologists, Calgary, Vol. 3: 229 - 242.

Dr Ginny Watson (Transvaal Museum, Pretoria):

The findings of the excavations at the Swartkrans cave near Krugersdorp during 1979-86 are being assimilated into a multi-authored monograph under the direction and editorship of Dr Bob Brain. These excavations have given us further insight into the culture and environments of the hominids that lived 1-2 million years ago. Possibly one of the most exciting things to come out of the findings was the discovery of the controlled use of fire about a million years ago - the earliest yet known. This was made by Bob Brain who, together with Dr Andrew Sillan of Cape Town, has researched and documented it.

At the moment the palaeontology department at the museum is going all out to find a new hominid site. Pedro Boshoff has joined us and is actively involved in the search. A potential site, Ploverslake, about 12 km from Swartkrans, is being investigated at present. This is an unroofed cave system on a private nature reserve belonging to messrs Everard and Mark Read, and it is with their help and co-operation that we are able to develop it. The breccia is extremely fossiliferous and is undisturbed, which makes a pleasant change from having to wade through piles of unprovenanced miners' rubble first. The system is on the same contour as Swartkrans and Kromdraai, and bears certain similarities to these sites.



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TRIBUTE TO PROFESSOR RAYMOND A DART

Members will have been sad to read of the death of the Doyen of South African palaeo-anthropology, Professor Raymond Dart, at the age of 95 on 22 November 1988. He was, of course, the man who identified the small skull from Taung as the type of *Australopithecus africanus* in 1925, unleashing a huge controversy that raged for years - and in some senses, still does.

Professor Dart was born at Toowong in Queensland, Australia, on 4 February 1893. In 1913 he graduated from the University of Queensland with a BSc (Hons), and then enrolled at the University of Sydney for medical studies, at the same time completing his MSc at the University of Queensland in 1914. He graduated with his MB, ChM (Hons) from the University of Sydney in 1917 and promptly joined the Australian Army Medical Corps. After the end of the Great War in 1919, Dart joined Professor Sir Grafton Elliot Smith at University College, London, as Senior Demonstrator in Anatomy. In 1922 he was recommended by Elliot Smith for the Chair of Anatomy at the newly founded University of the Witwatersrand in Johannesburg, and he and his first wife Dora arrived in January 1923 to establish the new department.

In 1936 Dart married for the second time. His new wife, Majorie, was to be his constant companion, friend and collaborator for the rest of his long and active life.

In 1925 he was appointed Dean of the Wits Medical Faculty - a post he was to hold for the next 18 years. This happened soon after he had become involved in the adventure that made his a household name around the world - the discovery of the first "Ape Man". One of his students, Josephine Salmons, told him of a fossil primate skull which a friend had collected from Taung, in what is now Bophuthatswana. The upshot of this initial contact was that some of the bone-bearing breccia from the quarry concerned was sent down to him in Johannesburg. It was in this that the famed "Taung Baby" skull was found embedded, and Dart's painstaking preparation with hammer and chisel - and several sharpened knitting needles purloined from his wife - over the next few months eventually produced the prepared skull on Dec 24th, 1924. His description was published by *The Star* newspaper in Johannesburg, although it had been intended that the original description should first appear in *Nature* (evidently criticism of Dart's conclusions and interpretations by referees had caused the editor of *Nature* to hold it back, but the scoop by

The Star forced him to reconsider. See the letter about referees by Eva Endrödy elsewhere in this issue). Dart's description duly appeared in *Nature* on 7 February 1925, and caused a scientific sensation.

His claims for the hominid affinity of *Australopithecus* received powerful support when Robert Broom discovered the first adult australopithecine material at Sterkfontein in 1936, later to be topped by the superb skull of "Mrs Ples" found in 1947.

When Phillip Tobias, one of Dart's medical students, discovered fossiliferous breccias at Makapansgat in 1945, another new chapter began in Dart's scientific career. *Australopithecus* was found there in September 1947, associated with the astonishing mass of bones preserved in the cave system - some of them curiously "worked". Dart's investigations of these deposits led him to develop his theory of the "Osteodontokeratic Culture" of the australopithecines - which itself turned out to be almost as controversial as his view that they were ancestors of man. This phase of the work also brought into the picture another man whose contribution to South African palaeontology has been outstanding - James Kitching. He joined in the work at Makapansgat not long after he had joined the fledgling Bernard Price Institute for Palaeontological Research on his demob from the Army at the end of World War II.

In 1958 Dart retired from the University of the Witwatersrand, and his place as Head of the Department of Anatomy was taken by his former student, Professor Phillip Tobias, who quickly established himself as an internationally recognised authority in this area too. In his retirement, Dart took on many new challenges - including an appointment at the Institute for the Achievement of Human Potential in the USA, which led to a life of jet-set commuting between America and South Africa. He held an honorary appointment at the BPI (Palaeontology) at Wits University right up until his death.

It is unfortunately a rather hackneyed, overworked and tired cliché, but we will not look on his like again.

This tribute is based largely on the facts contained in the excellent pictorial profile of Dart written by Frances Wheelhouse and published by Transpareon Press in 1983. I gratefully acknowledge the author and publisher.

M A Raath

ANDREW GEDDES BAIN: "Father of S A Geology"

In the last issue Mike Cluver included a note on A G Bain in celebration of 150 years since his discovery of the first therapsid fossil in the Karoo (Pal News/Nuus 6 (1): 9 - 10). A few weeks ago a friend and museum colleague, "Moose" van Rensburg of Fort Beaufort, drew my attention to a three-part series on A G Bain which appeared in recent issues of the magazine Engineering News (the issues published on March 17, 31 and April 7). The series was written by Don Visser, and I found them most informative and interesting. I thought other members might be as interested, so I asked the editor of Engineering News for permission to repeat those articles in the next few issues of Pal News/Nuus, which he kindly gave. I gratefully acknowledge Mr Creamer, - editor of Engineering News, and Mr Visser - author of the articles.

Part One:

Andrew Geddes Bain was a man of great horizons both mental and physical. With his companions Kift and Biddulph, he undertook expeditions of exploration from the Cape before the Voortrekkers, which helped to open up as yet unexplored country. Of his own volition he built roads and passes which opened up the way to the north for the people of Graaff-Reinet, where he lived.

Fascinated by the geological formations he encountered, he taught himself geology from the work *Principles of Geology* by the great English geologist, Charles Lyell. The geological map of the Cape that he produced earned him the title of South Africa's "Father of Geology". His parallel interest in fossil remains resulted in a collection, which the Royal Geological Society (sic) in London hailed as of great importance, and extracts of his letters, which accompanied the collection, were published in the Transactions of the Geological Society.

It is scarcely credible that all this was achieved by a man with no vocational training. In addition he was a writer, artist, soldier, saddler and hostelryman.

Born in Thurso, Scotland, in 1797, he received a classical education and in 1816, aged 19, sailed for Cape Town with Lt Col William Geddes, whose regiment was stationed there. Within two years he had married Maria van Backstrom, who was to bear him 11 children. They established themselves in Graaff-Reinet, where Andrew set up a saddlery, built a handsome house and

eventually opened a hostelry in collaboration with two partners.

His buoyant spirit, wit and friendliness made him very popular with the townsfolk. His energy knew no bounds and in 1825, having obtained a trading licence, he and Benjamin Kift explored the country extensively beyond the Orange River, going as far as Kuruman. The following year he and John Burnet Biddulph sought the "Mines of Mileta" in Bechuanaland (Botswana), penetrating as far as present-day Gaborone, further than any other white men had done and survived. In 1829 in an attempt to reach Port Natal, they were turned back at the Umzimvubu River by blacks fleeing from Dingaan, but brought back with them a precious load of ivory.

It was through these expeditions that Bain first discovered his ability as a writer. He produced a series of graphic drawings, and, his travel descriptions proving popular, he became a regular correspondent of the South African Commercial Advertiser under a pseudonym ...

He had a biting wit and, never learning to curb his pen, was soon involved in several libel suits: one which he lost was with Gerrit Maritz, later the Voortrekker leader. However, Bain's articles did much to help open up the country and his drawings, three of which are in Johannesburg's Africana Museum, are today highly prized items of Africana.

Bain's versatility is amply demonstrated by the fact that, turning to Afrikaans, he produced one of the earliest works in that language. On November 5, 1838 there appeared on the English stage in Grahamstown "Kaatjie Kekkelbek" - or "Life among the Hottentots" - of which Bain was the author, satyrising the philanthropy of Dr John Philip and other missionaries. Proving immensely popular, the name of the Hottentot female character, Kaatjie Kekkelbek, became a byword in Afrikaans.

It was well-nigh impossible to get farm produce to Graaff-Reinet over the rugged hills to the north and Andrew Bain, always drawn by a challenge, made a gesture that was to stand him in good stead for the rest of his life. In 1834, without any formal training at his command, he undertook the construction of the Ouderberg Pass and the ancillary roads quite gratuitously. He then supervised the work on the Van Ryneveld Pass, also without reward - the townsfolk of Graaff-Reinet, however, showed their gratitude by presenting him with a suitably inscribed medal.

In 1834, commissioned to procure live animals and rare skins for United States buyers, Bain joined the scientific expedition

organised by Dr Andrew Smith, the founder of the South African Museum at Cape Town. Leaving Smith's expedition near Philippolis, he proceeded north with a small party. Unfortunately, his Griqua guides stole cattle from Mzilikazi and the innocent Bain and his young assistant, Jan Sauer, almost lost their lives at the hands of a Matabele impi, being forced to seek safety by abandoning their wagons.

The loss of his wagons was a great financial blow.

Returning to Graaff-Reinet at the outbreak of the Sixth Frontier War (1834-35), he joined the army to recoup his losses with the Graaff-Reinet Burghers, under Col Henry Somerset. In 1835 he was made an Ensign in the Beaufort Levies, a Hottentot corps with white officers, and in July he took charge of Fort Thomson, a military post on the Tyumie River.

After the war Bain was appointed to the post of assistant engineer in the Royal Engineers department, superintending the construction gangs employed on the military roads on the frontier. Working under Major C J Selwyn, he received theoretical training, and became the best road engineer in the country.

Bain worked in the Border districts, first constructing the Queen's road northwards over Botha's Hill from Grahamstown to Fort Beaufort, which included the building of the Fish River bridge, then the biggest in Africa. Queen's road included the construction of the Ecce Pass, and the Bain family, united once more, spent some of their happiest years in a house on the Ecce heights.

At one with Nature, Bain was to embark upon the road that would lead him to the acme of his achievements, both as a builder of passes and as a geologist.

(Next issue: Bain's discovery of the first Karoo therapsids.)

RAAR MAAR WAAR - DIE STAATSDIENS IN DIE OU DAE

Geoloë wat vandag kla oor "red tape" en probleme met reëls en regulasies in die Staatsdiens weet nie waarvan hul praat nie.

Dr A L Hall was daar in Lydenburg se wêreld besig met kartering. As vervoer het hy 'n kar en perde gehad. Wanneer hy egter vir amptelike doeleindes na Pretoria moes gaan, kon hy van die spoorweë gebruik maak. So het hy eenkeer op Pretoria se stasie aangeland en 'n "cab" gehuur om hom huistoe te neem. Hierdie uitgawe het die Departement egter geweier om te vergoed op grond daarvan dat amptelike vervoer aan hom verskaf is. Die volgende keer het hy die kar en perd betyds in Lydenburg getrok en die kantoor versoek om dit in Pretoria te ontvang en hom daarmee op die stasie te ontmoet. Geen regulasies is oortree nie en alles was in orde. 'n Dag of wat later, na afhandeling van sy besigheid, is hy weer met kar en perde by die stasie afgelaai, die kar en perde per goederetrein aangestuur en dié ter geleëneer tyd op Lydenburg in ontvangs geneem. Alles in orde!

Dit word vertel dat dr. P A Wagner (miskien vanweë sy afkoms) maar suinig van geaardheid was. Hy moes op 'n keer op 'n amptelike besoek van Pretoria na Johannesburg reis. Daar aangekom moes hy 'n pennie betaal ten einde 'n takie te verrig waartoe die natuur hom gedwing het. Soos dit 'n nougesette amptenaar betaam, het hy die betrokke uitgawe op sy eisvorm teruggeëis. Dit is egter geweier omdat hy, so besluit die owerhede, die takie kon afgehandel het voor sy vertrek.

O R Van Eeden

(Bron: Nuus-Bulletin van die Geologiese Vereniging van Suid Afrika, 21 (3)).

LETTERS TO THE EDITOR

Sir,

I share Chris Gow's feeling (*Pal News/Nuus*, Dec. 1988). I also agree with Burger (Presidential Address, 1988) and Chris that "we" should do something when the waves of the Evolution/Creation Controversy are breaking on the shores of South Africa. We are palaeontologists. But who are "we" in the context of the controversy? I thought that what I should do is first to form a clearer concept of the controversy.

Creation and evolution are not mutually exclusive. Only the so-called "Creationists" and "Evolutionists" believe that one has to choose - either to accept creation of the universe, or evolution of living organisms upon the Earth. Although the term "fundamentalist" is occupied for one who interprets the Bible literally, precisely the controversy that exists between evolutionists and creationists makes it necessary to extend the term to cover everybody who interprets any book, theory, or scientific facts in a narrow-minded, mechanical, verbal meaning. Evolutionists, therefore, are also "fundamentalists".

The question "what are we up against?" (Presidential address) does not seem to me to be a foolish one. Though the argument that makes the question necessary is definitely foolish, it has heavy consequences. The choice between religion or science is easy for those who are interested only in one of the two, or in neither. Such a choice may disturb lay audiences, and it may be fatal for thinking youngsters - especially prospective scientists. Burger mentions "religious fanaticism". Forcing people to choose between religion and science forces our attention to materialist fanaticism, to which Western civilisation is even less immune - because it is in fashion, and it is supposed to be progressive. Creationism is a movement which is out to discredit science as a whole. Evolutionism is a movement which is out to discredit religion as such - irrespective of whether it is Judaism, any of the Christian movements, Hinduism, etc., etc., and irrespective also of whether evolution is accepted in those religious movements or churches.

My own answer to Burger's question is that I am "up against" both fundamentalist evolutionists and fundamentalist creationists!

For the present, any kind of "-ist" warrants precaution. I have met very aggressive, ruthless, even blood-thirsty "pacifists" and "humanists". Those who are aware of the existence of the Creator by studying Nature or the Universe (e.g. Einstein) are as far from

the "creationists" as peaceful people are from those "pacifists". Nor can those who work on fossils and phylogenies be classified as "evolutionists" in that sense. I classify "creationists" as those who are against "evolutionists", and vice-versa. I do not belong to either of the two groups. I would like to see us in a two-pronged attack on creationism and evolutionism, using a sharper and longer spike for evolutionists! Theologians are better equipped than we are against creationists. But, who are "we"?

"Might it be that our Society is keeping a low profile on the matter⁷ to appease the fundamentalists among us, and that somewhere out there the "silent majority" is happy to let science go its peaceful way?" (Presidential Address). I do not think that I have ever met a fundamentalist creationist in our palaeontological society, though fundamentalist creationists may occur among South African palaeontologists. Our society might keep a low profile on the matter because of the assumed binding choice either to join the creationists or the evolutionists; *tertia non datur*. Perhaps if we think freely we would see a third option - to reject both creationists and evolutionists; then we would find ourselves in a better position in South Africa than most scientists in the western world. Chris is right when he says that a good many palaeontologists in this country are quite religious (including myself), and this makes us fairly unique. Not too many scientists in the western world outside of South Africa dare to acknowledge openly the existence of the Creator in an era of fashionable materialism.

Eva Endrödy

Geological Survey, Pretoria

Sir,

I welcome a certain topic that finally came into the open, namely on the "remarkable feature of the present system of anonymous refereeing in scientific publications" (*Nature*, 335 (1988): 391-392). The system of anonymous refereeing is a symptom of serious sickness of the present scientific community, a sign of lost ability to distinguish between moral right and wrong. As every sentence in two letters came as if from my own heart, I need only quote:

From the letter of A Thyagaraja, UK (*Nature*, 335 (1988): 391-392): "anonymous refereeing in scientific publications ... appears to give the referee power without responsibility. It is

unprecedented in any other public human activity to have a reviewing body with whom the protagonist cannot directly dispute in front of his ultimate audience... In sport, the umpires must give their impartial verdicts in full view of millions. Travesties are obviously found out. In the judicial process (in civilised countries), a citizen has a right to hear the charges and to refute them openly."

"A system set up, almost as if by design, to propagate "COWDUNG" (conventional wisdom of the now-dominant group...). The deplorable but real tendency of some to hide behind anonymity to write incompetent, or worse, a motivated report can be inhibited only if the system is changed. Unlike umpiring in sport, there is a powerful conflict of interest inherent in scientific refereeing, as a referee's own work is often the target of the author's article."

From the letter of J B Wright, UK (*Nature*, 336 (1988): 10):

"on the relatively rare occasions when I have received signed referee's reports, they have been cogently expressed and I have welcomed them, irrespective of whether they were favourable or not. Unfavourable anonymous reports are less welcome. I have often found them difficult to reply to, because they tend to be cryptic if not incomprehensible; anonymity seems to invite a casual approach.

"Where it has been necessary to reject a paper, I have always provided a full explanation, so that the author(s) can come back to me direct.

"Nobody has yet presented me with a convincing argument in favour of anonymous refereeing, and that includes practising scientists as well as journal editors. Quite simply, I do not believe there is one.

"Most vulnerable to anonymous refereeing are those working in controversial or rapidly developing fields, especially if they are young and trying to make a name for themselves. Show me a scientist who favours anonymous refereeing and I will show you someone who is insecure. That is my opinion, after some 30 years' experience. What do other people think?"

What do you, South Africans, think?

Eva Endrödy

CAINOZOIC ENVIRONMENTS WORKING GROUP MEETS

A workshop meeting of the Pedocretes Interest Group is being held in the Eastern Transvaal on 29 and 30 July, to look at calcrete and ferricrete occurrences in contrasting landscapes. It has been organised by Prof Eben Verster and Prof Theo van Rooyen of UNISA.

The next SPADS workshop is set for the weekend of 27-29 October, also in the Eastern Transvaal, and is to be led by Prof John de Villiers. Further details from Dr Tertius Harmse (the TV Weather Guy), who can be reached at telephone (011) 489-2428.

(Information from H J Deacon)



'He's ozone unfriendly.'

(From Punch, 12 May 1989)

PSSA AND SACNAS

I wonder how many members of PSSA are also registered as Natural Scientists with SACNAS (the S A Council for Natural Scientists)? I am, and I duly pay my annual fee of R125,00 each year - and each time I do so it seems to hurt a bit more! Of course, there are ways of paying less - mainly by belonging to one of the Associations recognised by the Council in terms of Section 7 (3) of the Natural Scientists Act. But the PSSA does not feature on that list; nor do the other organisations to which I belong. So I wrote off to the Registrar to enquire what criteria must be met to qualify for recognition. I was sent the Schedule to the Act, and an extract of the relevant sections is reproduced below. Is there any merit in asking our committee to look into applying for recognition for our Association? See what you think

...

"REQUIREMENTS WITH WHICH AN ASSOCIATION OF NATURAL SCIENTISTS SHALL COMPLY IN ORDER TO QUALIFY FOR RECOGNITION AS A NATURAL SCIENTISTS ASSOCIATION IN TERMS OF SECTION 7 (3) (a) (i) OF THE NATURAL SCIENTISTS ACT, 1982 (ACT 55 OF 1982).

...

SCHEDULE

1. In this schedule an expression or a word to which a meaning has been assigned in the Natural Scientists Act, 1982 (Act 55 of 1982), bears the same meaning and, unless the context otherwise indicates - "association" means an association of Natural Scientists;

"corporate member" means a member of an association of natural scientists who has voting rights over the affairs of the association;

"the Act" means the Natural Scientists Act, 1982 (Act 55 of 1982).

2. An association shall be constituted in the Republic of South Africa and shall have no formal connection by way of statute with a foreign counterpart and shall, in terms of its constitution, further the interests or promote the study of at least one discipline belonging to the following groups of natural sciences or related sciences:

- (a) Earth sciences;
- (b) chemical sciences;
- (c) physical sciences;
- (d) mathematical sciences;
- (e) biological sciences;

- 3.1 An association shall have at least 100 corporate members.
- 3.2 At least two-thirds of the members of the governing body of an association shall be domiciled in the Republic of South Africa.
- 3.3 At least two-thirds of the corporate members of an association shall -
- 3.3.1 be domiciled in the Republic of South Africa; and
- 3.3.2 be registered as natural scientists or as natural scientists in training or shall comply with the requirements prescribed for registration as a natural scientist or natural scientist in training in terms of the Act.

4.1 An association shall, within 30 days from the date of its adoption advise the Registrar in writing of any amendment effected to its constitution, bye-laws or regulations.

4.2 etc.,...

I would appreciate some discussion of the merits or otherwise of this matter. With the new environmental legislation coming, and the likelihood that more of us will be called upon to act as consultants or contract investigators (see the "News from the Secretary" earlier in this issue), the question of registration to avoid contravention of the law is going to become ever more pressing and relevant. What are your views - pro or con? Quite a number of my friends and colleagues dismiss the Natural Scientists Act as restrictive, meddling, troublesome and utterly undesirable, and they refuse to register. Others believe that the Council is serving the best interests of Natural Scientists by entering into negotiations on salaries, status, etc., at the levels where it counts in this country.

Please drop me a line to tell me where you stand, and let's get a debate going.

Ed.

PROPOSED PUBLICATION ON PALAEONTOLOGICAL TECHNIQUES

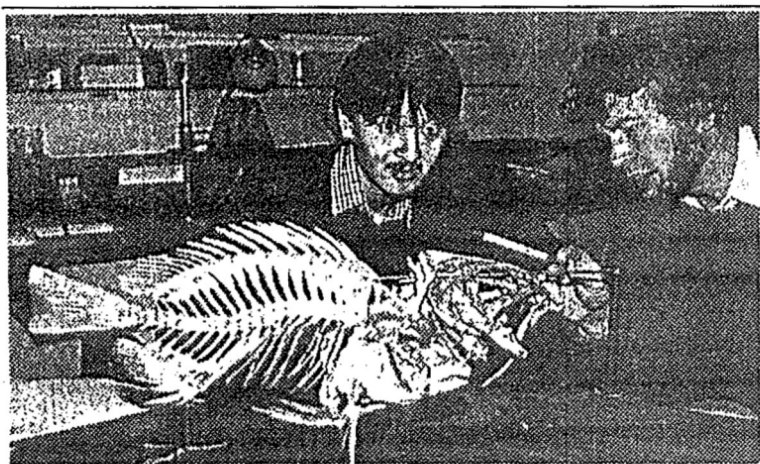
Some of you may have received a circular from Patrick Leiggi of the Museum of the Rockies in Montana and Peter May of the Royal Ontario Museum in Toronto about a proposed book to be published on palaeontological techniques. No such compilation has been produced since the now classical volume by Kummel and Raup (1965).

The circular gives a schedule of dates by which time the necessary steps in preparing the volume must have taken place, with a target publication date some time early in 1991. Although some of the initial deadlines for receipt of offers to contribute have already passed, interested potential contributors can probably still contact the editors at the following addresses for further details:

Patrick Leiggi
Museum of the Rockies
Montana State University
Bozeman
Montana
59717
USA
(Fax 406-994-2682)

OR

Peter May
Royal Ontario Museum
100 Queens Park
Toronto
Ontario
Canada M5S 2C6
(Fax 416-586-5863)



Bruce Rubidge spotted this in a "girlie" magazine (SCOPE), with the caption: International Chefs add the final touches to the main course at the Anorexics Annual Dinner-Dance".
See who is on the right? - TOM KEMP!