



AASP NEWSLETTER

D. J. NICHOLS, EDITOR

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DALLAS MEETING A SUCCESS

REGISTRATION AT THE 12TH ANNUAL MEETING, HELD IN DALLAS, WAS 225. THE RECORD ATTENDANCE REFLECTS NOT ONLY THE CONTINUAL GROWTH OF THE ORGANIZATION (SEE RELATED STORY) BUT ALSO THE WIDE INTEREST IN THE DIVERSE PROGRAM OF THE MEETING, A CREDIT TO THE LOCAL COMMITTEE.

A WORKSHOP ON FLUORESCENCE MICROSCOPY WAS CONDUCTED BY PIETER VAN GIJZEL ON 29 OCTOBER, AND REPEATED ON THE 30TH AND ON THE 1ST AND 2ND OF NOVEMBER. A TOTAL OF 96 PEOPLE PARTICIPATED IN THE WORKSHOPS, INCLUDING MANY NON-MEMBERS OF AASP. DR. VAN GIJZEL'S "MANUAL OF THE TECHNIQUES AND SOME APPLICATIONS OF FLUORESCENCE MICROSCOPY," WHICH WAS DISTRIBUTED AT THE WORKSHOPS, IS AVAILABLE FROM THE AASP FOUNDATION. THE MANUAL CONTAINS 55 PAGES AND SELLS FOR \$3.00. WRITE TO BOB CLARKE, AASP FOUNDATION TREASURER, MOBIL R&D CORP., P.O. BOX 900, DALLAS, TX 75221.

A SYMPOSIUM ON KEROGEN WAS HELD UNDER THE CHAIRMANSHIP OF FRANK STAPLIN. THE VISUAL (MICROSCOPICAL) AND GEOCHEMICAL RELATIONSHIPS OF KEROGEN WERE STRESSED IN A SERIES OF FORMAL PAPERS. ART COHEN SPOKE ON PROPERTIES OF ORGANIC CONSTITUENTS IN PEATS; STAN POCOCK PRESENTED A CLASSIFICATION OF PLANT-DERIVED ORGANIC MATTER IN SEDIMENTARY ROCKS; SEDLEY BARSS DISCUSSED A PRAGMATIC APPROACH TO KEROGEN STUDIES; BOB JONES DELIVERED A PAPER COAUTHORED WITH TOM EDISON ON THE RELATIONSHIP OF MICROSCOPIC ORGANIC ANALYSIS AND GEOCHEMICAL PARAMETERS; BORIS ALPERN COMPARED TRANSMITTANCE, REFLECTANCE, AND FLUORESCENCE OF KEROGEN; CLAUDE CARATINI DESCRIBED THE ORGON PROJECT, IN WHICH KEROGEN ANALYSIS OF RECENT OCEANIC SEDIMENTS IS BEING CONDUCTED; PIETER VAN GIJZEL EXPLAINED THE PRINCIPLES AND APPLICATIONS OF GEOMICROPHOTOMETRY OF KEROGEN. DESPITE ALL THIS INTEREST IN THE SUBJECT, THERE DOES NOT SEEM TO BE UNIVERSAL AGREEMENT ON JUST WHAT KEROGEN IS! THE SYMPOSIUM WAS SUMMARIZED BY A ROUND-TABLE DISCUSSION BY THE SPEAKERS IN WHICH QUESTIONS FROM THE AUDIENCE WERE ANSWERED. ABSTRACTS OF THE PAPERS PRESENTED ARE INCLUDED IN "KEROGEN—VISUAL AND CHEMICAL RELATIONSHIPS," AVAILABLE FROM AASP FOUNDATION (10 P., \$1.00, ADDRESS ABOVE).

THE REGULAR TECHNICAL SESSION, WITH INVITED AND CONTRIBUTED PAPERS, BEGAN ON 1 NOVEMBER. THE THEME WAS "FUTURE CHALLENGES AND INNOVATIONS." OUTGOING AASP PRESIDENT JACK BURGESS ADDRESSED THE AUDIENCE IN OPENING CEREMONIES. JACK VIEWS THE FUTURE OF PALYNOLOGY WITH OPTIMISM. GREAT STRIDES HAVE BEEN MADE IN THE 30 OR SO YEARS SINCE THE INTRODUCTION OF STRATIGRAPHIC PALYNOLOGY TO THE OIL INDUSTRY, AND PALYNOLOGY IS ALSO BEING EMPLOYED IN SUCH DIVERSE FIELDS AS RECONSTRUCTION OF ANCIENT CLIMATES AND IN ARCHEOLOGICAL RESEARCH. JACK VIEWS OUR GREATEST CHALLENGE FOR THE FUTURE AS THE NEED FOR INTEGRATION OF PALYNOLOGY INTO MULTIDISCIPLINARY APPROACHES TO SOLVING PROBLEMS IN MANY

VARIED EARTH SCIENCE FIELDS. THE INVITED SPEAKERS WERE KEYNOTER ROBERT AGATSTON, ARCO, WHO TOLD "A TALE OF THE HISTOGRAM," JAMES MOMPER, AMOCO, WHO SPOKE ON "OIL EXPULSION—A CONSEQUENCE OF OIL GENERATION," DOUGLAS WAPLES, COLORADO SCHOOL OF MINES, WHO PRESENTED "A SIMPLE METHOD FOR OIL SOURCE BED EVALUATION," AND JAMES WALKER, UNIV. MASSACHUSETTS, WHO DESCRIBED "POLLEN WALL EVOLUTION IN EXTANT PRIMITIVE ANGIOSPERMS AND ITS BEARING ON THE QUESTION OF THE NATURE AND EARLY EVOLUTION OF THE EARLIEST FLOWERING PLANTS." PAPERS CONTRIBUTED BY 27 SPEAKERS TOUCHED ON A WIDE RANGE OF TOPICS, FROM PALYNOFORM MORPHOLOGY TO APPLIED PALYNOSTRATIGRAPHY, AND FROM THE PROTEROZOIC TO THE PLEISTOCENE. THE PROGRAM WAS WRAPPED UP BY A MINI-SYMPOSIUM OF PAPERS DEALING WITH PALYNOLOGY OF THE ALBIAN ROCKS RELATED TO THE SUBJECT OF THE POST-MEETING FIELD TRIP. A BOOKLET, "TECHNICAL SESSIONS ABSTRACTS WITH PROGRAM" (V + 32 P., \$2.00), IS AVAILABLE FROM AASP FOUNDATION (ADDRESS ABOVE).

THERE WERE INNOVATIONS IN THE PROCEEDINGS, PERHAPS INSPIRED BY THE THEME OF THE MEETING. REED WICANDER AND GORDON WOOD PRESENTED AASP'S FIRST FORMAL POSTER SESSION ON "ORGANIC-WALLED MICROPHYTOPLANKTON OF THE MIDDLE DEVONIAN SILICA FORMATION." NORM FREDERIKSEN MODERATED A PANEL DISCUSSION ON "THE FUTURE OF PALYNOLOGY" IN WHICH REPRESENTATIVES FROM ACADEMIA, INDUSTRY, AND GOVERNMENT, WITH A BROAD SPECTRUM OF INTERESTS, OFFERED COMMENTS ON PROBLEMS AND OPPORTUNITIES PRESENTED BY APPARENT TRENDS IN OUR SCIENCE. THE PANEL DISCUSSION COMMEMORATED THE CENTENNIAL OF THE U.S. GEOLOGICAL SURVEY.

THOSE ATTENDING THE FIELD TRIP VISITED DINOSAUR VALLEY STATE PARK NEAR GLEN ROSE, TEXAS, WHERE DINOSAUR TRACKS ARE EXPOSED IN THE BED OF THE PALUXY RIVER. PARTICIPANTS COULD ALSO SAMPLE ALBIAN ROCKS BEARING DINOFLAGELLATES AND PRIMITIVE ANGIOSPERM POLLEN AT OTHER STOPS ON THE TRIP. THE FIELD TRIP GUIDEBOOK, "LOWER CRETACEOUS SHALLOW MARINE ENVIRONMENTS IN THE GLEN ROSE FORMATION: DINOSAUR TRACKS AND PLANTS," BY BOB F. PERKINS AND WANN LANGSTON, JR., IS AVAILABLE. THE ILLUSTRATED GUIDEBOOK CONTAINS 55 PAGES AND SELLS FOR \$2.00 (WRITE TO BOB CLARKE, AASP FOUNDATION).

OTHER HIGHLIGHTS OF THE DALLAS MEETING INCLUDED THE TRADITIONAL "ICEBREAKER" PARTY, WITH DRINKS AND SNACKS PROVIDED, THE ANNUAL BUSINESS MEETING AND LUNCHEON, AND THE OPTIONAL TEXAS BARBEQUE BANQUET, COMPLETE WITH COWBOY BAND AND SOUVENIRS: WESTERN NECKERCHIEFS AND BOTTLES OF LONE STAR BEER. ALL THINGS CONSIDERED, THE 12TH ANNUAL WAS A MEMORABLE MEETING.

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AASP NEWSLETTER IS PUBLISHED QUARTERLY BY AMERICAN ASSOCIATION OF STRATIGRAPHIC PALYNOLOGISTS, INC.

LETTERS TO THE EDITOR

DEAR EDITOR,

AT LAST NUMBER 5B OF THE AASP CONTRIBUTION SERIES HAS BEEN PUBLISHED. WAYNE BRIDEAUX, THE EDITOR, IS TO BE CONGRATULATED ON PERSEVERING WITH HIS FAR FROM EASY TASK AND ON PRODUCING AN EXCELLENT AND USEFUL VOLUME. BETTER LATE THAN NEVER, MOST WILL AGREE, BUT IT SHOULD HAVE BEEN PUBLISHED AND DISTRIBUTED IN OCTOBER, 1977, AT THE TENTH ANNIVERSARY MEETING OF AASP. MY CONTRIBUTION, "THE STRATIGRAPHIC DISTRIBUTION OF DINOCYSTS IN THE PORTLANDIAN (LATEST JURASSIC) TO BARREMIAN (EARLY CRETACEOUS) OF NORTHWEST EUROPE" WAS SUBMITTED TO THE EDITOR BY THE FIXED DEADLINE OF OCTOBER, 1976, AND SINCE THEN IT HAS NOT BEEN UPDATED. THIS CONSIDERABLE PERIOD BETWEEN SUBMISSION AND PUBLICATION IS THE REASON FOR THE SOMEWHAT ARCHAIC NATURE OF SOME OF THE TAXONOMY.

HOWEVER, I AM NOT WRITING TO BEMOAN SLOWNESS IN PUBLICATION BUT TO INFORM READERS OF MY ARTICLE—MAY BE THERE A FEW OUT THERE—OF CERTAIN ERRATA. MAY I SAY THAT I DID NOT RECEIVE GALLEY PROOFS OR PAGE PROOFS AND HENCE IT WAS NOT POSSIBLE TO CORRECT EITHER THE TYPING MISTAKES, ESPECIALLY THE SPELLING, OR THE OTHER MORE SERIOUS ERRORS INDICATED BELOW.

FIRSTLY, I HAVE NO IDEA WHERE THE LOCATION MAP, TEXT-FIG. 1A (p. 5), CAME FROM—ANYONE SEEN IT BEFORE? MOREOVER IT HAS NO RELEVANCE WHATSOEVER TO MY PAPER SINCE THE LOCALITIES IT IDENTIFIES AND THE PAPERS IT LISTS ALL DEAL WITH APTIAN AND YOUNGER CRETACEOUS SECTIONS—MY PAPER DEALS WITH PRE-APTIAN SEQUENCES. NONE OF THE 13 PAPERS INDICATED IS MENTIONED EITHER IN THE TEXT OR IN THE BIBLIOGRAPHY. THE LOCATION MAP RELEVANT TO MY PAPER AND THE ONLY ONE I SUBMITTED IS ON PAGE 52, LABELLED TEXT-FIG. 1B. THUS PAGE 50, LINE 7 SHOULD READ, "TEXT-FIG. 1B" NOT "TEXT-FIG. 1A." DON'T MISUNDERSTAND ME THOUGH, IT IS A NICE LOCATION MAP AND ALL THE PAPERS MENTIONED ARE WORTH READING, ONLY IT BELONGS IN ANOTHER PUBLICATION.

THE SECOND SERIOUS FAULT CONCERNS THE CAPTION TO TEXT-FIG. 6 (p. 67); IT IS IN ERROR CONCERNING THE MEANING OF THE ASTERISKS. AS IT STANDS, IT MAKES NO SENSE SINCE ONLY THE FIRST AND LAST APPEARANCE DATUMS ARE SHOWN IN THE LAST TWO COLUMNS. THE CAPTION SHOULD READ, "DINOCYST ZONATION, PORTLANDIAN TO BARREMIAN (* INDICATES EITHER FIRST OR LAST STRATIGRAPHIC APPEARANCE OF THE GENUS)."

ONCE AGAIN, CONGRATULATIONS ON THE VOLUME. JUST CONTACT ME IF YOU WANT AN ARTICLE IN THE AASP CENTENARY VOLUME!

R. J. DAVEY

NEW ZEALAND
TOM HASKELL

THANK YOU FOR NEWSLETTER 12 (4). THE NEW FORMAT IS EXCELLENT, THE LAYOUT AND CONTENT ARE INTERESTING AND ARE A CREDIT TO THE ADVANCING EDITORIAL SKILLS OF THE SOCIETY. THIS FAR SOUTH, OUR BRITISH RELATIONS EVEN SAY "DOWN UNDER," IT IS A PLEASURE TO GET SOMETHING RIGHT-SIDE-UP FOR A CHANGE.

DEAR EDITOR,

MESSAGE FROM THE PRESIDENT

BY JIM CANRIGHT

THE EDITOR OF THIS NEWSLETTER RECENTLY INFORMED ME THAT "IT'S AN OLD AASP TRADITION" FOR THE INCOMING PRESIDENT TO PUBLISH A MESSAGE IN THE DECEMBER NEWSLETTER. THE ABOVE QUOTATION REMINDED ME OF A SOMEWHAT SIMILAR SITUATION WHEN I FINISHED GRADUATE SCHOOL AND TOOK MY FIRST TEACHING POST AS A YOUNG INSTRUCTOR AT INDIANA UNIVERSITY. PERHAPS FEARFUL THAT I WOULD ATTEMPT TO TRANSFER SOME "LIBERAL" IVY LEAGUE CONCEPTS TO THE SOMEWHAT CONSERVATIVE INDIANA UNIVERSITY CAMPUS, AN ELDERLY, INBRED IU PROFESSOR ADVISED ME THAT ALTHOUGH HARVARD NO DOUBT HAD MANY VENERABLE AND WORTHWHILE TRADITIONS, THE HOOSIERS WERE INITIATING NEW TRADITIONS ALMOST EVERY DAY!

SO IT IS WITH AASP—DURING THE 12 YEARS THAT THIS ORGANIZATION HAS BEEN IN EXISTENCE, COUNTLESS NEW TRADITIONS HAVE ARISEN. I'M QUITE CERTAIN THAT WHEN THE 32 FOUNDING MEMBERS (MOSTLY OIL COMPANY PALYNOLOGISTS) MET IN TULSA TO ESTABLISH THE AASP IN 1967, FEW VISUALIZED THAT NOT ONLY WOULD THE MEMBERSHIP SWELL TO OVER 600 IN 12 YEARS OF EXPLOSIVE GROWTH, BUT ALSO THAT ESSENTIALLY A THIRD OF THE MEMBERSHIP WOULD RESIDE IN COUNTRIES OUTSIDE OF NORTH AMERICA. FURTHERMORE, THE PALYNOLOGICAL SPECIALIZATIONS OF THE CURRENT MEMBERSHIP, ALTHOUGH STILL PRIMARILY STRATIGRAPHIC IN EMPHASIS, NOW RANGE FROM STUDIES OF PRECAMBRIAN MICROFOSSILS TO ARCHEOLOGICAL POLLEN ANALYSIS. ALTHOUGH THIS DIVERSITY OF INTERESTS BOTHERS SOME OF OUR MEMBERS, I FOR ONE HAVE BEEN PLEASED TO NOTE THE INCREASE IN HETEROGENEITY OVER THE YEARS. IF PROOF IS NEEDED OF THIS INCREASED CATHOLICITY (THAT SYNONYM COULD GET ME IN TROUBLE!), COMPARE THE TOPICS OF THE PAPERS PRESENTED AT THE FIRST ANNUAL MEETING IN BATON ROUGE IN 1968 WITH THOSE GIVEN AT THE 12TH ANNUAL MEETING IN DALLAS LAST MONTH.

IN THIS CONNECTION, BUD SIMPSON, GENERAL CHAIRMAN OF THE DALLAS MEETING, AND HIS ENTIRE LOCAL COMMITTEE, HAVE EARNED OUR HEARTFEST CONGRATULATIONS FOR ORGANIZING AND RUNNING A SUPERB CONVENTION. THE TOTAL NUMBER OF REGISTRANTS AT THE MEETING WAS 225. ANY TIME A GEOGRAPHICALLY WIDELY-DISPersed SOCIETY SUCH AS OURS CAN ATTRACT MORE THAN ONE-THIRD OF ITS MEMBERSHIP TO ITS ANNUAL CONVENTION, AND THE GREAT MAJORITY GO HOME PLEASED AND SATISFIED, YOU CAN BE SURE THAT THE ORGANIZING COMMITTEE DID A GREAT JOB!

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FOURTH COLLOQUIUM ON PALEOBOTANY AND PALYNOLOGY

THE IV COLLOQUIUM ON PALEOBOTANY AND PALYNOLOGY WILL BE HELD IN MEXICO CITY, 21-26 JULY 1980. THE MAIN TOPICS WILL BE: (1) PRECAMBRIAN FLORA, (2) PALEOBOTANY AND PALYNOLOGY IN THE MESOZOIC, (3) QUATERNARY PALYNOLOGY, (4) NANNOFOSSILS, AND (5) PALYNOLOGY AND ALLERGY. THE OFFICIAL LANGUAGES OF THE COLLOQUIUM WILL BE SPANISH AND ENGLISH (SIMULTANEOUS TRANSLATION). THE ABSTRACT DEADLINE IS 30 APRIL. ANYONE WISHING TO ATTEND SHOULD WRITE, BEFORE 21 APRIL, TO: ELOY SALAS, INST. MEXICANO DEL PETROLEO, AV. CIEN METROS No. 152, APARTADO POSTAL 14-805, MEXICO 14, D.F.

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1980 ANNUAL MEETING: FIRST ANNOUNCEMENT

THE 1980 ANNUAL MEETING OF AASP WILL BE HELD IN KEYSTONE, COLORADO, 14-18 OCTOBER. KEYSTONE IS A MOUNTAIN RESORT TOWN 72 MILES WEST OF DENVER. BUS TRANSPORTATION WILL BE ARRANGED FROM A HOSPITALITY ROOM AT THE DENVER INN, NEAR STAPLETON INTERNATIONAL AIRPORT, TO KEYSTONE LODGE. THERE WILL BE A CHOICE OF ACCOMMODATIONS, INCLUDING CONDOMINIUMS AS WELL AS REGULAR ROOMS; ALL ROOMS HAVE A MOUNTAIN VIEW. EXCELLENT MEETING ROOMS AND DISPLAY AREAS ARE AVAILABLE.

THE TOWN OF KEYSTONE BOASTS 8 RESTAURANTS AND 24 SHOPS. RECREATION FACILITIES WILL INCLUDE SWIMMING (YEAR-ROUND POOL), HORSEBACK RIDING, HIKING, AND TENNIS (INDOOR AND OUTDOOR COURTS). DAYS WILL BE SUNNY AND EVENINGS COOL. MEMBERS MAY WISH TO BRING THEIR FAMILIES FOR A FALL VACATION IN THE ROCKIES.

THE THEME OF THE MEETING WILL BE "BACK TO BASICS IN BIOSTRATIGRAPHY." PAPERS CONCERNING PRINCIPLES AND APPLICATIONS OF BIOSTRATIGRAPHY WILL BE SOUGHT TO FORM A MAJOR COMPONENT OF THE PROGRAM ALONG WITH THE KEYNOTE ADDRESS, WHICH WILL BE ON THEORETICAL CONSIDERATIONS IN BIOSTRATIGRAPHY.

A SECOND GROUP OF PAPERS WILL BE SOLICITED ON A TOPIC OF LOCAL IMPORTANCE AND WIDE INTEREST: PALYNOLOGY OF THE THRUST BELT OF UTAH, WYOMING, IDAHO, AND MONTANA. AN INVITED PAPER ON THRUST BELT GEOLOGY WILL HIGHLIGHT THIS COMPONENT OF THE PROGRAM. DINOFLAGELLATE STUDIES WILL BE A THIRD PART OF THE 1980 PROGRAM. AN INVITED PAPER WILL LEAD THE SESSION.

PAPERS ABOUT PALYNOLOGY APPLIED TO THE SOLUTION OF GEOLOGICAL PROBLEMS HAVE BEEN WELL RECEIVED AT PAST MEETINGS. MEMBERS ARE URGED TO CONSIDER CONTRIBUTING PAPERS WITH THIS THEME. THEY WILL TIE IN WELL WITH THE MAIN THEME OF THE MEETING, AND COULD COMPRISE A MAJOR COMPONENT OF THE PROGRAM.

IF THERE IS SUBSTANTIAL INTEREST, A POSTER SESSION WILL BE ORGANIZED. THE POSTER SESSION COULD BE HELD CONCURRENTLY WITH OR REPLACE A REGULAR SESSION AS APPROPRIATE.

AASP MEMBERS ARE URGED TO PLAN TO PARTICIPATE IN THE 1980 PROGRAM. PAPERS ON ALL ASPECTS OF PALYNOLOGY WILL BE SOLICITED. THE FORMAL CALL FOR PAPERS WILL COME IN THE APRIL NEWSLETTER. THE SECOND ANNOUNCEMENT, INCLUDING DETAILS ON REGISTRATION, ACCOMMODATIONS, AND FIELD TRIPS WILL ALSO APPEAR IN THAT ISSUE.

THE LOCAL COMMITTEE FOR THE KEYSTONE, COLORADO, MEETING INCLUDES JOE GUENNEL AND HUGH WINGATE, CO-CHAIRMAN; DAVE WALL, HOTEL; DOUG NICHOLS AND STEVE JACOBSON, PROGRAM; HANK OTT AND KARL NEWMAN, FIELD TRIPS. THE MEETING ADMINISTRATOR IS LOIS ELMS, (303) 770-9050.

ROCKY MOUNTAIN HIGH--KEYSTONE '80. BE THERE!

AASP OUTSTANDING STUDENT PAPER AWARD

DAVID GOODMAN WON THE 1979 OUTSTANDING STUDENT PAPER AWARD FOR HIS PRESENTATION AT THE DALLAS MEETING. DAVE'S PAPER, COAUTHORED WITH LEWIS STOVER, WAS "COMPARISON OF MICRODINIUM AND ALLIED DINOFLAGELLATE GENERA." THE AWARD CONSISTS OF A FRAMED SCROLL AND TWO YEARS FREE MEMBERSHIP IN AASP. DAVE, WHO IS EMPLOYED BY EXXON, IS WORKING ON HIS DOCTORATE UNDER BILL EVITT AT STANFORD UNIVERSITY.

SHORT COURSE ON DIATOMS & SILICOFAGELLATES

A SERIES OF LECTURES AND LAB SESSIONS ON THE STRATIGRAPHIC UTILITY OF DIATOMS AND SILICOFAGELLATES WILL BE HELD AT THE UNIVERSITY OF REDLANDS, REDLANDS, CALIFORNIA, 7-12 JANUARY 1980. COURSE MATERIALS WILL INCLUDE 30 SLIDES WITH REPRESENTATIVE CRETACEOUS TO HOLOCENE ASSEMBLAGES AND A 250 PAGE REFERENCE BOOK. THE COURSE IS DESIGNED FOR PROFESSIONAL MICROPALAEONTOLOGISTS; THE COST IS \$1200. FOR INFORMATION AND RESERVATIONS, CALL: WALTER M. WORNARDT (714) 793-1959 OR 793-2121 EXT. 219.

THIRD NORTH AMERICAN PALAEONTOLOGICAL CONVENTION

NAPC-III WILL CONVENE IN MONTREAL, CANADA, 5-11 AUGUST 1982. PRESENTATION OF PAPERS AND MEETINGS OF SYMPOSIA ARE SCHEDULED TO TAKE PLACE DURING THE FIRST 3 DAYS, AND THE FOLLOWING 4 DAYS HAVE BEEN RESERVED FOR FIELD TRIPS.

INDIVIDUALS OR GROUPS WHO WISH TO PROPOSE SYMPOSIA OR FIELD TRIPS SHOULD SEND DETAILS TO THE CONVENORS, COLIN STEARN AND BERNARD MAMET, AT: DEPT. GEOLOGICAL SCIENCES, MCGILL UNIVERSITY, 3450 UNIVERSITY ST., MONTREAL H3A 2A7.

IT IS ANTICIPATED THAT INDIVIDUAL CONTRIBUTIONS NOT ORGANIZED INTO SYMPOSIA WILL BE ACCEPTED. THE ORGANIZING COMMITTEE IS CONSIDERING THE FORM OF PUBLICATION THAT MAY RESULT FROM THESE MEETINGS. DETAILS OF HOW CONTRIBUTIONS SHOULD BE SUBMITTED AND DEADLINES WILL BE ANNOUNCED IN THE FUTURE.

NEWSLETTER PUBLICATION DATES

ASTUTE MEMBERS MAY HAVE NOTICED THAT THIS "DECEMBER" ISSUE OF AASP NEWSLETTER IS DATED JANUARY, 1980. THIS CHANGE MAKES IT POSSIBLE TO BRING OUR VOLUME NUMBERS AND THE CALENDAR YEARS INTO PHASE. IT MAY SEEM LIKE A SMALL CHANGE, BUT IT PROMISES TO DELIGHT THE HEARTS OF ALL THE LIBRARIANS WHO MUST ACCESSION THE NEWSLETTER ISSUES. WE WILL STILL BE PUBLISHING AT QUARTERLY INTERVALS, AND IN FACT THE DEADLINE DATES FOR SUBMISSION OF COPY FOR THE SUCCESSIVE ISSUES REMAINS THE SAME AS BEFORE: THE 15TH OF FEBRUARY, MAY, AUGUST, AND NOVEMBER OF EACH YEAR.



CHEW ON THIS

AASP MANAGING EDITOR VAUGHN BRYANT RECENTLY DELIVERED A LECTURE ON "PREHISTORIC DIETS" AS PART OF THE TEXAS A&M UNIVERSITY FACULTY LECTURE SERIES. VAUGHN HAS BEEN STUDYING THE PALYNOLOGY OF COPROLITES FROM ARCHEOLOGICAL SITES FOR CLUES TO THE DIETARY PRACTICES OF OUR ANCESTORS. HE SUGGESTS WE CAN BENEFIT PERSONALLY FROM SUCH KNOWLEDGE AND IS PREPARING A BOOK ON "THE CAVEMAN DIET." CAN YOU IMAGINE MAMMOTH-AU GRATIN (OR, AS IT WAS PRONOUNCED IN THE PLEISTOCENE, "MAMMOTH, UGH, ROTTEN")?

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LIFE MEMBERSHIP IN AASP?

THE AASP BOARD OF DIRECTORS IS CONSIDERING A PROPOSAL TO MAKE AVAILABLE LIFE MEMBERSHIPS IN THE ASSOCIATION. UNDER THE TERMS BEING CONSIDERED, INDIVIDUALS COULD MAKE ONE PAYMENT OF \$300 TO BECOME LIFE MEMBERS. THE NECESSARY BOOKKEEPING WOULD BE UNDERTAKEN ONLY IF PARTICIPATION IN THIS OPTION WOULD JUSTIFY IT. MEMBERS COULD REALIZE ADVANTAGES IN SAVINGS ON DUES IN THE LONG RUN AND IN NOT NEEDING TO BE CONCERNED WITH MEMBERSHIP RENEWAL NOTICES. AASP COULD USE FUNDS TO GENERATE INVESTMENT INCOME, THEREBY STRENGTHENING THE SOCIETY'S FINANCIAL STATUS.

IF YOU HAVE AN OPINION ABOUT LIFE MEMBERSHIP, EITHER WAY, PLEASE DROP A NOTE TO JOHN CLENDENING. RESPONSE OF THIS KIND WILL BE TAKEN AS EVIDENCE OF INTEREST, AND WILL BE USED TO REACH A DECISION ON THE PROPOSAL.

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CANADIAN ASSOCIATION OF PALYNOLOGISTS

THE CANADIAN ASSOCIATION OF PALYNOLOGISTS (CAP) CURRENTLY HAS ABOUT 70 MEMBERS, ALL OF WHOM RESIDE IN CANADA. THE ASSOCIATION RECENTLY ELECTED THE FOLLOWING 1980 EXECUTIVE BY ACCLAMATION: DAVE JARZEN (PRESIDENT), JAN JANSONIUS (PRESIDENT-ELECT), JOCELYN LEGAULT (SECRETARY-TREASURER), AND JONATHAN BUJAK (NEWSLETTER EDITOR). CAP'S REPRESENTATIVE ON ICP IS JOHN UTTING. THE CANADIAN ASSOCIATION OF PALYNOLOGISTS AND CANADIAN BOTANICAL ASSOCIATION CO-SPONSORED A SYMPOSIUM LAST JUNE ON "LANDMARK EVENTS IN THE EVOLUTION OF PLANTS" AT CARLETON UNIVERSITY, OTTAWA. THE NEXT CAP NEWSLETTER WILL BE DISTRIBUTED IN DECEMBER.

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TRAVEL GRANTS FOR CAMBRIDGE MEETING

BY JIM CANRIGHT

THE AASP BOARD OF DIRECTORS IS CURRENTLY APPLYING FOR A GROUP AWARD FROM THE NSF INTERNATIONAL TRAVEL GRANT PROGRAM. WE HOPE TO BE ABLE TO ASSIST SOME MEMBERS OF OUR ASSOCIATION WITH THEIR TRAVEL EXPENSES TO ATTEND THE FIFTH INTERNATIONAL PALYNOLOGICAL CONFERENCE TO BE HELD IN CAMBRIDGE, ENGLAND, 29 JUNE-6 JULY 1980. ALTHOUGH THERE IS NO GUARANTEE THAT OUR GROUP APPLICATION WILL BE FUNDED BY NSF, IN VIEW OF THE SHORT RESPONSE TIME AVAILABLE WE SHOULD BE PREPARED TO MAKE INDIVIDUAL TRAVEL AWARDS, IF OUR APPLICATION IS SUCCESSFUL.

WITH THIS IN MIND, A FOUR-PERSON SCREENING COMMITTEE HAS BEEN FORMALLY ESTABLISHED UNDER THE CHAIRMANSHIP OF DR. CHARLES J. FELIX OF SUNMARK, DALLAS. THIS COMMITTEE WILL EXAMINE THE APPLICATIONS OF AASP MEMBERS AND MAKE THEIR RECOMMENDATIONS TO THE BOARD OF DIRECTORS BY 1 APRIL. APPLICANTS FOR TRAVEL FUNDS TO ATTEND 5.IPC SHOULD INCLUDE THE FOLLOWING DOCUMENTATION: (1) BRIEF CURRICULUM VITAE, (2) PERSONAL BIBLIOGRAPHY, (3) TITLE OF PAPER OR DEMONSTRATION SUBMITTED FOR PRESENTATION AT CAMBRIDGE, (4) AMOUNT OF FINANCIAL SUPPORT ANTICIPATED FOR THESE MEETINGS FROM THEIR OWN INSTITUTION, GRANT FUNDS, OR FROM OTHER ORGANIZATIONS, (5) NAME AND LOCATION OF ANY INTERNATIONAL SCIENTIFIC MEETINGS ATTENDED IN THE PAST 3 YEARS, AND (6) APPROXIMATE R/I JET COACH FARE TO LONDON FROM APPLICANT'S HOME CITY.

APPLICATIONS SHOULD REACH DR. FELIX PRIOR TO 1 MARCH 1980. ANNOUNCEMENT OF INDIVIDUAL TRAVEL GRANTS (IF FUNDED BY NSF) CAN BE ANTICIPATED BY MID-APRIL AT THE LATEST.

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PALYNOLOGY VOLUME 3 DISTRIBUTED

PALYNOLOGY, VOLUME 3, WAS PUBLISHED IN OCTOBER, 1979. THE ISSUE CONTAINS 300 PAGES, 40 PLATES, AND 2 FOLD-OUT CHARTS. FOURTEEN ARTICLES ARE INCLUDED, ALONG WITH THE ABSTRACTS OF PAPERS PRESENTED AT THE 10TH ANNUAL MEETING (TULSA, 1977). COPIES WERE DISTRIBUTED TO MEMBERS ATTENDING THE MEETING IN DALLAS, AND WERE MAILED TO ALL OTHERS. BOB CLARKE ADVISES THAT IF YOU HAVE NOT RECEIVED YOUR COPY BY 15 JANUARY 1980 YOU SHOULD NOTIFY HIM.

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CORRECTION

IN THE JUNE, 1979, NEWSLETTER A NOTICE APPEARED ENTITLED "TERTIARY LITERATURE NEEDED." SOMEHOW THE STUDENT, RENA MCFARLANE, WAS MISTAKEN FOR THE PROFESSOR, BOB SANDERS. RENA WOULD LIKE THIS TO BE CORRECTED. WE PRESUME THAT THE LITERATURE IS STILL NEEDED. THEIR ADDRESS IS: DEPT. OF GEOLOGY, UNIV. ALASKA, FAIRBANKS, AK 99701.

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AASP GROWTH CONTINUES

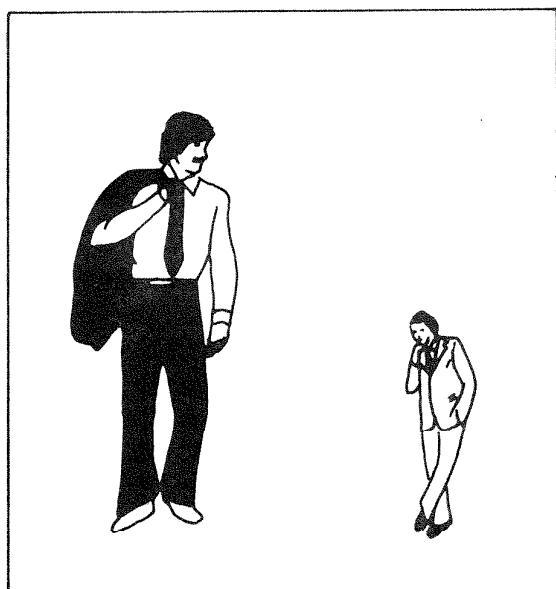
AS OF OCTOBER, 1979, AASP HAD 658 MEMBERS IN GOOD STANDING. THIS FIGURE INCLUDES 94 INSTITUTIONAL MEMBERS. THESE TOTALS MAY BE COMPARED WITH THE 1968 TOTALS: 203 MEMBERS OF WHICH 3 WERE INSTITUTIONS. THE FIGURES ARE INDICATIVE OF THE REMARKABLE GROWTH OF THE ORGANIZATION SINCE ITS FOUNDING 12 YEARS AGO. THE LATEST OFFICIAL TOTAL IS OUT OF DATE ALREADY, OF COURSE. ONE HAS ONLY TO LOOK AT THE LISTS OF NEW MEMBERS PUBLISHED IN EACH NEWSLETTER TO SEE THAT. BETWEEN OCTOBER, 1978, AND OCTOBER, 1979, 74 INDIVIDUALS AND 15 INSTITUTIONS JOINED AASP.

THE TREASURER'S REPORT FOR 1979 SHOWS THAT AASP'S NET WORTH AS OF 12 OCTOBER WAS OVER \$22,000. THAT FIGURE COULD BE MISLEADING, BECAUSE THE PRINTING COSTS FOR THE THIRD VOLUME OF PALYNOLOGY HAD NOT BEEN PAID AS OF THAT DATE. IT IS STILL QUITE SIGNIFICANT, HOWEVER, BECAUSE DURING THE EARLY HISTORY OF THE ASSOCIATION IT WAS NECESSARY TO COLLECT THE NEXT YEAR'S DUES BEFORE THE JOURNAL (THEN A PROCEEDINGS VOLUME) COULD BE PUBLISHED.

PALYNOLOGY, AASP'S JOURNAL, IS NOT JUST A PROCEEDINGS VOLUME. MANUSCRIPTS ON ANY ASPECT OF PALYNOLOGY WILL BE CONSIDERED FOR PUBLICATION, REGARDLESS OF WHETHER THE PAPER WAS PRESENTED AT AN AASP MEETING. FUTURE VOLUMES OF PALYNOLOGY WILL BE PUBLISHED AS SOON AS A SUFFICIENT NUMBER OF PAPERS IS GATHERED. PRIORITY WILL BE GIVEN TO AASP MEMBERS AND TO PAPERS PRESENTED AT MEETINGS.

AT \$15.00 A YEAR AASP MEMBERSHIP IS A COMPARATIVE BARGAIN. MEMBERS MAY NOT NEED TO PAY THEIR DUES IN ORDER TO HELP GET THE JOURNAL PRINTED, BUT THEY DO TO BE COUNTED IN THAT TOTAL "IN GOOD STANDING." A NEW, IMPROVED DUES NOTICE IS APPENDED TO THIS NEWSLETTER AS AN ADDITIONAL REMINDER!

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**PALYNOLOGIST TALKING TO A
MICROPALAEONTOLOGIST**

(COURTESY OF CAP NEWSLETTER)

POSITION AVAILABLE

SOHIO PETROLEUM COMPANY IS LOOKING FOR A STRATIGRAPHIC PALYNOLOGIST WITH FIVE TO TEN YEARS OF BROAD INDUSTRIAL EXPERIENCE TO WORK IN SAN FRANCISCO. SOME KNOWLEDGE OF COMPUTER APPLICATIONS TO PALYNOLOGY WOULD BE AN ADVANTAGE TO THE APPLICANT. ANYONE SUITABLY QUALIFIED SHOULD SEND A CURRICULUM VITAE AND NAMES OF REFEREES TO:
MR. H. HAUtau, SOHIO PETROLEUM CO., 100 PINE STREET,
SAN FRANCISCO, CA 94111.

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POSITIONS WANTED

GARY POWIS IS SEEKING A POSITION AS COMPANY PALYNOLOGIST OR A RESEARCH/TEACHING POSITION. HE HAS A B.Sc. (HONS) FROM UNIV. OF WOLLONGONG, AUSTRALIA, AND IS PRESENTLY NEARING COMPLETION OF HIS PH.D. ON LATE PALEOZOIC PALYNOLOGY AT UNIV. OF WESTERN AUSTRALIA. HE ALSO HAS SOME EXPERIENCE IN MESOZOIC PALYNOLOGY, AND DINOFLAGELLATES. HIS PAST STUDIES HAVE INCLUDED WORK WITH SEM, TEM, AND OPTICAL MICROSCOPY TECHNIQUES. FOR CURRICULUM VITAE AND REFERENCES, PLEASE CONTACT: GARY POWIS, DEPT. OF GEOLOGY, UNIV. WESTERN AUSTRALIA, NEDLANDS, W.A., AUSTRALIA 6009

C. J. VAN DER ZWAN WANTS A POSITION AS PALYNOLOGIST. HE HAS EXPERIENCE IN DEVONIAN AND CARBONIFEROUS PALYNOLOGY, INCLUDING STRATIGRAPHY, INTEGRATION PALEOGEOGRAPHY-PALYNOLOGY, INTEGRATION PALEOCLIMATOLOGY-PALYNOLOGY, AND MORPHOLOGICAL STUDIES. ADDITIONALLY HE HAS EXPERIENCE IN MESOZOIC PALYNOLOGY INCLUDING DINOFLAGELLATES. HE HAS JUST OBTAINED A PH.D. IN PALYNOLOGY/GEOLOGY AT UNIV. OF UTRECHT. CONTACT: C. J. VAN DER ZWAN, LAB. OF PALAEOBOTANY & PALYNOLOGY, HEIDELBERGLAAN 2, UTRECHT, THE NETHERLANDS.

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ANNOUNCING "FOCUS"

BEGINNING WITH THE APRIL ISSUE, AASP NEWSLETTER WILL BE FEATURING A NEW COLUMN, ENTITLED "FOCUS." THE COLUMN WILL CARRY NEWS OF INTEREST TO PALYNOLOGISTS CONTRIBUTED BY VARIOUS UNIVERSITIES AND LABORATORIES IN NORTH AMERICA. ONGOING RESEARCH AND THESES BY PROFESSIONALS AND STUDENTS WILL BE DESCRIBED AS WE "FOCUS" ON PARTICULAR INSTITUTIONS IN SUCCESSIVE ISSUES.

THE COLUMN WILL BE A MEANS FOR INDIVIDUALS TO MAKE THEIR PROGRAMS KNOWN TO AASP MEMBERS WHO MAY BE INTERESTED, AND A WAY FOR AASP MEMBERS TO KEEP UP WITH WHAT IS GOING ON BEHIND THE SCENES. "FOCUS" WILL BE AN EXPERIMENT; ITS SUCCESS WILL BE DETERMINED BY RESPONSE FROM THE MEMBERSHIP. IF YOU WOULD LIKE TO SEE YOUR ORGANIZATION AND ITS MEMBERS PROFILED, SEND A BRIEF REPORT ON RESEARCH IN PROGRESS, THESES NEARING COMPLETION, AND PLANS TO YOUR NEWSLETTER EDITOR.

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PALYNOLITERATURE

COPIES OF "BRITISH LOWER PALAEOZOIC PALYNOMORPH WORKING GROUP REPORT" FOR 1979 (ISSN 0143-3652) ARE AVAILABLE TO INDIVIDUAL MEMBERS OF AASP WHO WISH TO HAVE THEIR OWN COPY. PLEASE SEND YOUR REQUEST TO: KEN DORNING, PALLAB RESEARCH, 58 ROBERTSON ROAD, WALKLEY BANK, SHEFFIELD. S6 5DX, ENGLAND.

V. MARKGRAF AND H. D'ANTONI, 1978, "POLLEN FLORA OF ARGENTINA: MODERN POLLEN AND SPORE TYPES OF PTERIDOPHYTES, GYMNASPERMAE, AND ANGIOSPERMAE" Univ. Arizona Press (P.O. Box 3398, TUCSON, AZ 85722), IX + 208 p., 43 pls. (\$9.50 + .50 POSTAGE).

THE FOLLOWING ARE AVAILABLE FROM PUBLICATIONS SECTION, SCHOOL OF GEOSCIENCE, LSU, BATON ROUGE, LA 70803:

W.A.S. SARJEANT, 1978, "A GUIDE TO THE IDENTIFICATION OF JURASSIC DINOFLAGELLATE CYSTS," Misc. PUBL. 78-1, 107 p., 11 FIGS., 8 TAB. (\$10 + 1.10 POSTAGE);

R.W. PIERCE & G.F. HART, 1979, "PHYTOPLANKTON OF THE GULF OF MEXICO: TAXONOMY OF CALCAREOUS NANNOPLANKTON," GEOSCI. & MAN, v. 20, 97 p., 18 pls., 18 FIGS., 5 TAB. (\$12 + 1.10 POSTAGE).

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BULLETIN BOARD

PALAEOONTOLOGICAL ASSOCIATION SYMPOSIUM, "LIFE IN THE PRE-CAMBRIAN," LEICESTER, ENGLAND, 10-12 APRIL 1980 (DR. T. D. FORD, DEPT. GEOL., THE UNIVERSITY, LEICESTER, U.K.).

FIFTH INTERNATIONAL PALYNOLOGICAL CONFERENCE (5.IPC), CAMBRIDGE, ENGLAND, 29 JUNE-6 JULY 1980 (MRS. G. E. DREWRY, DEPT. GEOL., SEDGWICK MUSEUM, DOWNING ST., CAMBRIDGE CB2 3EQ, U.K.).

FIRST INTERNATIONAL PALAEOBOTANICAL CONFERENCE, CAMBRIDGE, ENGLAND, 7-13 JULY 1980 (P. R. CRANE, DEPT. BOTANY, THE UNIVERSITY, READING, U.K.).

FOURTH COLLOQUIUM ON PALEOBOTANY AND PALYNOLOGY, MEXICO CITY, 21-26 JULY 1980 (ELOY SALAS, INST. MEXICANO DEL PETROLEO, AV. CIEN METROS #152, APARTADO POSTAL 14-805, MEXICO 14, D.F.).

THIRD NORTH AMERICAN PALAEOONTOLOGICAL CONVENTION (NAPC-III), MONTREAL, CANADA, 5-11 AUGUST 1982 (COLIN STEARN, DEPT. GEOL. SCI., MCGILL UNIV., 3450 UNIVERSITY ST., MONTREAL, QUEBEC H3A 2A7).

COMMISSION INTERNATIONALE DE MICROFLORE DU PALEOZOIQUE (CIMP), 1982 MEETING, "PALYNOLOGY AT THE NORTH ATLANTIC MARGIN," DUBLIN, IRELAND, SEPTEMBER, 1982 (JOINT MEETING WITH AASP).

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REVIEWS

GEOLOGICAL BACKGROUND TO FOSSIL MAN, EDITED BY W. W. BISHOP; PUBLISHED FOR GEOLOGICAL SOCIETY OF LONDON BY SCOTTISH ACADEMIC PRESS AND UNIVERSITY OF TORONTO PRESS; 1978, XII + 585 p., \$60

THE PROLIFERATION OF LEARNED SCIENTIFIC PUBLICATIONS OVER THE LAST 2 YEARS HAS RESULTED IN A CONCOMITANT INCREASE IN THE NUMBER OF BOOK REVIEWS. THIS SYMBIOTIC RELATIONSHIP IS NECESSARY IF THE KNOWLEDGEABLE INDIVIDUAL IS TO SPEND HIS DOLLARS WISELY, ESPECIALLY IF THEY ARE THE SOMEWHAT DEFLATED CANADIAN VARIETY. IT IS, HOWEVER, DIFFICULT TO WRITE AN IMPARTIAL CRITIQUE WHEN ONE HAS READ 2 REVIEWS OF A BOOK BEFORE SEEING THE VOLUME IN QUESTION. WE ARE ALL INFLUENCED BY THE BIASES OF OTHERS EVEN IF OUR REACTION IS NEGATIVE, SO THAT WE MAY CRITICIZE OR PRAISE SOLELY BECAUSE OF PRECONCEIVED NOTIONS. THE REVIEWER IS ALSO PLACED IN A DIFFICULT POSITION BY UNCERTAINTY OVER HIS CHOSEN TASK. IS HE SELECTED BECAUSE HE IS A CONVENIENT BODY PASSING BY? DOES HE HAVE A RESPONSIBILITY TO HIS READERS (I USE THE PLURAL HOPEFULLY) AND IF SO, HOW DOES HE AFFECT THEM? FROM MY PERSONAL EXPERIENCE, I HAVE NEVER DECIDED AGAINST BUYING A BOOK BECAUSE OF A POOR REVIEW; I HAVE, HOWEVER, BOUGHT ONE PRIMARILY ON THE RECOMMENDATIONS OF A REVIEWER, OFT TIMES ONLY TO BE DISAPPOINTED.

THE REVIEWER CAN BE CONSIDERED AN INDIVIDUAL OF SOME IMPORTANCE SINCE HE INFLUENCES THE PURCHASES OF OTHERS AND PERHAPS, MORE IMPORTANTLY, RECEIVES A COMPLIMENTARY COPY FOR HIS PAINS. IS THIS JUST COMPENSATION FOR THE TIME AND AGONY WHICH GOES INTO WRITING A REVIEW, ESPECIALLY FOR THE FIRST TIME, AND WHERE CAN HE TURN FOR GUIDANCE? TO DATE I HAVE FAILED TO SATISFACTORILY ANSWER THESE QUESTIONS. WE DO NOT HAVE A "DO IT YOURSELF REVIEWS" OR "THE AMATEUR'S GUIDE TO REVIEWING" OR "THE HOME A TO Z OF REVIEWING." ONE SOURCE OF INFORMATION IS FUNK AND WAGNALL, WHERE ONE DEFINITION OF A REVIEW IS: "TO EXAMINE IN ORDER TO NOTE THE EXCELLENCE, DEFECTS OR PECULIARITIES OF; WRITE OR PRINT A CRITICAL NOTICE OF, AS OF A BOOK." I SHALL ENDEAVOR TO DO PRECISELY THAT ON THE BOOK "GEOLOGICAL BACKGROUND TO FOSSIL MAN."

DR. W. W. BISHOP, THE EDITOR OF THE BOOK, WAS ORGANIZER OF THE SYMPOSIUM OF THE SAME NAME HELD AT THE GEOLOGICAL SOCIETY OF LONDON IN 1975. UNFORTUNATELY, DR. BISHOP DIED BEFORE FINAL REVISION OF ALL OF THE INCLUDED MANUSCRIPTS, BUT THE UNSTINTING EFFORTS OF OTHERS HAS RESULTED IN A WORK OF HIGH STANDARD WITH RELATIVELY FEW INCONSISTENCIES. THE MOST DECEPTIVE ASPECT OF THE BOOK IS THE TITLE. THIS LEADS THE UNSUSPECTING READER TO ANTICIPATE A THOROUGH GROUNDING IN THE GEOLOGICAL SETTING OF ALL PARTS OF THE WORLD WHERE THE REMAINS OF FOSSIL MAN HAVE BEEN UNCOVERED. REGRETTABLY THIS IS NOT SO, AS EXPLAINED ON PAGE 111 WHERE, IN SMALL PRINT, APPEARS THE QUALIFIER, "RECENT RESEARCH IN THE GREGORY RIFT VALLEY, EAST AFRICA." THIS IMMEDIATELY RESTRICTS THE COVERAGE AND IS UNDERSTANDABLE, EVEN THOUGH RECENT FINDS ARE QUESTIONING THE WISDOM OF CONSIDERING ONLY AFRICA WHEN POSTULATING ON THE ORIGIN OF MAN.

(CONT'D. P. 7)

THE MAIN TEXT OF THE BOOK IS PRECEDED BY AN ABBREVIATED BUT FASCINATING ACCOUNT OF EARLY GEOLOGICAL STUDIES OF THE GREGORY RIFT VALLEY, PART OF THE AFRICAN RIFT SYSTEM. IT WOULD HAVE BEEN BENEFICIAL TO EXPAND THIS SECTION SO THAT THE NON-SPECIALIST COULD MORE MEANINGFULLY APPRAISE SOME OF THE VARIOUS THEORIES ON THE ORIGIN OF RIFT VALLEYS IN GENERAL. IT WOULD ALSO HAVE HELPED TO INCLUDE THE END-PAPERS IN THE TEXT SO THAT THE GEOGRAPHIC SETTING WOULD BE MORE APPARENT.

THE TRIPARTITE DIVISION OF THE MAIN TEXT SEPARATES THE STRUCTURAL, VOLCANIC AND GEOPHYSICAL FRAMEWORKS (PART I) FROM THE PALEONTOLOGICAL AND ARCHEOLOGICAL PROBLEMS (PART II) AND REGIONAL STUDIES (PART III). THE INTRODUCTORY CHAPTER ON RIFTING IS TANTALIZING BECAUSE OF WHAT IS NOT SAID RATHER THAN THE REVERSE. THE DISCUSSION ON THE ORIGIN OF THE AFRICAN RIFT SYSTEM IS LIMITED TO "MANTLE PLUME TECTONICS" AND "MEMBRANE TECTONICS." THE EXPLANATIONS OF THESE 2 RESPECTIVE HYPOTHESES ARE SUPERB, BUT DO NOT DISPEL THE FEELING OF DISAPPOINTMENT IN THE READER WHO IS REFERRED TO THE WORK OF OTHER AUTHORS FOR FURTHER THEORIES. THE PROMISE OF THE TITLE IS THEREFORE NOT MAINTAINED IN THE TEXT. THE SUBSEQUENT CHAPTERS IN PART I FURTHER FACILITATE ONE'S UNDERSTANDING OF THE STRUCTURE AND VOLCANISM OF THE GREGORY RIFT VALLEY WHICH, ACCORDING TO B. C. KING, IS IN THE CLOSING STAGES OF ITS EVOLUTION, RATHER THAN MARKING THE INITIATION OF AN EPISODE OF CRUSTAL SPREADING. ONE USEFUL ADDITION WOULD HAVE BEEN A REGIONAL GEOLOGY MAP, PREFERABLY IN COLOR, RATHER THAN SEVERAL SMALL ONES.

THE GENERAL PALEONTOLOGICAL AND ARCHEOLOGICAL PAPERS INCLUDE AN ENLIGHTENED PRESENTATION ON TAPHONOMY, OF PARTICULAR IMPORTANCE IN THE STUDY OF FOSSIL MAN, WHO DIRECTLY OR INDIRECTLY CAN BE THE REASON FOR THE OCCURRENCE OF DISPARATE ANIMAL REMAINS IN THE SAME SEDIMENTS. THE STATISTICAL APPROACH TO TEMPORAL BIOSTRATIGRAPHY BY STUEY ET AL. SHOULD BE READ BY ALL PRACTICING BIOSTRATIGRAPHERS, ESPECIALLY PROPONENTS OF GRAPHIC CORRELATION. OBVIOUSLY TIME IS OF THE ESSENCE. ALLOMETRY IS A SUBJECT THAT PROBABLY CONCERNS MOST PALEONTOLOGISTS TOO INFREQUENTLY, BUT IS OF MAJOR IMPORTANCE TO THE VERTEBRATE SPECIALIST. THE DEFINITION OF GOULD (1966) "THE STUDY OF SIZE AND ITS CONSEQUENCE" IS PARTICULARLY APPROPRIATE IF WE APPLY IT TO TODAY'S ENVIRONMENT. ONE OF THE MOST FASCINATING CHAPTERS IS THAT ON THE FIRST GEOLOGISTS. THESE DID NOT INCLUDE WILLIAM SMITH OR JAMES HUTTON, BUT FOSSIL MAN OF APPROXIMATELY 2 MILLION YEARS AGO. HE COULD DIFFERENTIATE BETWEEN DIFFERENT KINDS OF ROCK AND SELECT THE MOST APPROPRIATE FOR INDIVIDUAL TOOLS, A REMARKABLE ACCOMPLISHMENT.

THE CATHOLIC TASTES OF PART II GIVE WAY TO THE MORE SPECIALIZED AND LESS UNIVERSALLY APPEALING PART III, WHICH OUTLINES REGIONAL GEOLOGICAL STUDIES IN THE GREGORY RIFT VALLEY. INDIVIDUAL PAPERS OUTLINE THE GEOLOGY OF THE OLDUVAI GORGE (INCLUDING HOMINID EVOLUTION, MADE FAMOUS BY THE LEAKEY FAMILY) AND LAETOLIL IN TANZANIA, OLORGESAILIE AND THE LAKE DARINGO BASIN, KENYA, AND LAKE TURKANA (RUDOLF) BASIN IN KENYA AND ETHIOPIA AND THE AFAR AREA OF ETHIOPIA. THERE IS AN IMPRESSIVE COLORED GEOLOGICAL MAP OF THE OLORGESAILIE REGION. PRESUMABLY COST WAS THE PROHIBITIVE FACTOR IN THE ABSENCE OF OTHER COLORED MAPS IN THE BOOK. THIS IS UNDERSTANDABLE, ALTHOUGH MORE GEOLOGICAL MAPS WOULD HAVE BEEN IN KEEPING WITH THE BOOK'S

TITLE. SEVERAL CHAPTERS ON THE LAKE TURKANA REGION HIGHLIGHT THE PROBLEMS OF RELYING TOO HEAVILY ON ONE BRANCH OF GEOCHRONOLOGY. AS FITCH ET AL. IN ONE CHAPTER STATE, "THE TWO MAJOR TOOLS OF GEOCHRONOLOGY: STRATIGRAPHICAL PALEONTOLOGY AND RADIOISOTOPIC DATING, ARE EQUALLY FALLIBLE AND ARE BEST USED IN CONJUNCTION." ONLY 2 CHAPTERS SEEM SOMEWHAT INAPPROPRIATE FOR THIS SECTION, ONE ON FOSSIL HIPPOPOTAMI AND ONE ON FOSSIL BOVIDS, BUT THIS IS A MINOR CRITICISM IN A SECTION WHICH IS OF MUCH MORE INTEREST THAN AT FIRST GLANCE.

REVIEWERS OF LATE HAVE ATTEMPTED TO DON THE MANTLE OF INTELLECTUAL LIONS BY APPRAISING BOOKS ON NUMBER OF PAGES PER CENT OR VICE VERSA, NUMBER OF WORDS PER CENT, COLOR OF BINDING, PRICE PER CENTIMETER OF THICKNESS AND OTHER EQUALLY LUDICROUS CRITERIA. THE PRIMARY CANON MUST BE THE QUALITY AND RELEVANCE OF THE CONTENTS. WHEN MEASURED BY THIS YARDSTICK, "GEOLOGICAL BACKGROUND TO FOSSIL MAN" REPRESENTS GOOD VALUE, ALTHOUGH I WOULD HAVE PREFERRED MORE EMPHASIS ON THE REGIONAL GEOLOGY AND A MORE DETAILED HISTORICAL PERSPECTIVE ON THE STUDIES OF FOSSIL MAN. THIS WOULD HAVE WHETTED THE APPETITE OF THOSE OF US LOOKING FOR EVIDENCE OF OUR ANCESTORS. THE RELATIVELY HIGH PRICE OF THE BOOK MAY BE A DETERRENT TO SOME WITH ONLY THE SPECIALIST BEING MOTIVATED TO PURCHASE A COPY. OTHERS WILL HAVE TO PREVAIL ON THEIR LIBRARIES TO ACQUIRE THIS INFORMATIVE AND INTERESTING PUBLICATION IF THEY WISH TO ACQUIRE A MORE KNOWLEDGEABLE UNDERSTANDING OF THE GEOLOGY OF THE GREGORY RIFT VALLEY. TAKE MY WORD FOR IT THAT IT WILL BE TIME WELL SPENT.

G. L. WILLIAMS

ANALYSES OF PRE-PLEISTOCENE ORGANIC-WALLED DINOFLAGELLATES, BY LEWIS E. STOVER AND WILLIAM R. EVITT; STANFORD UNIVERSITY PUBLICATIONS, GEOLOGICAL SCIENCES, VOL. XV; 298 P., 2 TEXT-FIGS., 6 TAB., \$7.50

SINCE THE EARLY 1950'S, NOT ONLY HAS THE NUMBER OF FOSSIL DINOFLAGELLATE TAXA GROWN RAPIDLY FROM A COUPLE OF HUNDRED TO THOUSANDS, BUT THE UNDERSTANDING OF CYST MORPHOLOGY HAS ALSO INCREASED DRAMATICALLY. CONSEQUENTLY, MANY DINOFLAGELLATE GENERA AND SPECIES ERECTED IN THE EARLIER YEARS MAKE NO MENTION OF FEATURES NOW CONSIDERED CRITICAL IN CYST TAXONOMY. FOR EXAMPLE, THE SEMINAL WORKS OF GEORGES DEFLANDRE AND ALFRED EISENACK ON ORGANIC-WALLED MICROPLANKTON PUBLISHED BEFORE AND AFTER THE SECOND WORLD WAR CONTAIN NO REFERENCE TO THE ARCHEOPLYE (AT THAT TIME BELIEVED TO BE THE RESULT OF ACCIDENTAL DAMAGE) AND DO NOT RECOGNIZE SKOLOCHORATE CYSTS AS DINOFLAGELLATES (GROUPED SEPARATELY AS THE CLASSICAL HYSTRICHOSPHERES).

SEVERAL ATTEMPTS HAVE BEEN MADE OVER THE LAST 10 TO 15 YEARS TO PUBLISH AIDS FOR THE RESEARCHER IN FOSSIL DINOFLAGELLATE TAXONOMY, THE MOST NOTABLE TO DATE BEING EISENACK'S "KATALOG DER FOSSILEN DINOFLAGELLATEN, HYSTRICHOSPHÄREN, UND VERWANDTEN MIKROFOSSILIEN" (1964-1971), A COMPENDIUM OF SPECIES DESCRIPTIONS--AND LENTIN AND WILLIAMS' "FOSSIL DINOFLAGELLATES--INDEX TO GENERA AND SPECIES," A PERIODICALLY UPDATED LISTING OF LOW-LEVEL TAXA AND THEIR SYNONYMS (THE MOST RECENT VERSION WAS PUBLISHED IN 1977). THESE 2 PUBLICATIONS ALLOW THE STUDENT OF FOSSIL DINOFLAGELLATES TO RATHER RAPIDLY ENTER THE DIFFUSE TAXONOMIC LITERATURE WITH A MINIMUM OF DISCOMBOBULATION.

(CONT'D. P. 8)

A MAJOR PROBLEM STILL CONFRONTING THOSE WORKING IN THE FIELD, HOWEVER, RELATES TO GENERIC CIRCUMSCRIPTION: WHAT GENUS DOES A PARTICULAR SPECIES BELONG TO? HOW CAN TWO CLOSELY SIMILAR GENERA BE DIFFERENTIATED? HOW SHOULD OVERLAPPING GENERIC CHARACTERS BE HANDLED? THESE AND RELATED PROBLEMS ARE EXACERBATED BY THE EQUIVOCAL OR VARIABLE MANNER BY WHICH GENERA HAVE BEEN ERECTED OVER THE YEARS.

STOVER AND EVITT'S "ANALYSES" TACKLES THESE PROBLEMS AND IN DOING SO SETS ANOTHER LANDMARK IN THE STUDY OF THIS STRATIGRAPHICALLY HIGHLY USEFUL GROUP OF ALGAL PALYNO-MORPHS.

STOVER AND EVITT'S OBJECTIVES WERE TO RESTATE IN MODERN TERMINOLOGY GENERIC CONCEPTS AND THEIR LIMITS (INCLUDING PREVIOUSLY UNMENTIONED CHARACTERISTICS) AND TO ELIMINATE OR MINIMIZE OVERLAP. THEIR METHOD INVOLVES ANALYSIS OF 279 PERIDINIALEAN GENERA AND EVALUATION OF MORE THAN 1500 SPECIES OF PRE-PLEISTOCENE CYSTS. SEVENTEEN NEW GENERA AND 3 NEW SPECIES ARE PROPOSED, WHILST 22 GENERA ARE SUPPRESSED AS JUNIOR SYNONYMS AND A FEW OTHERS ON DIFFERENT GROUNDS. TEN APPENDICES PROVIDE SUPPLEMENTAL INFORMATION AND DETAILED TAXONOMIC DISCUSSIONS. THIRTY-ONE GENERA ARE IDENTIFIED AS LACKING DINOFLAGELLATE AFFINITIES. A USEFUL ANNOTATED INDEX QUICKLY ALLOWS THE READER TO FIND REFERENCE TO A GENUS, ITS STATUS, AND ITS ARCHEOPYLE TYPE.

THE MAJOR PORTION OF THE BOOK IS OCCUPIED BY ANALYSES OF GENERA, INCLUDING THE ORIGINAL DESCRIPTION (TRANSLATED INTO ENGLISH WHERE NECESSARY), SALIENT SUPPLEMENTAL DESCRIPTIONS, A SYNOPSIS IN MODERN TERMINOLOGY (17 TERMS BEING NEW OR USED IN A SPECIAL MANNER), A RESULTANT MODIFIED DESCRIPTION, COMPARISONS WITH OTHER GENERA, AND A LIST OF ACCEPTED, PROVISIONALLY ACCEPTABLE, AND REATTRIBUTED SPECIES.

AT THIS POINT IF YOU ARE ABOUT TO ORDER THIS BOOK—WAIT! THERE ARE ONLY 2 LINE DRAWINGS IN THE ENTIRE VOLUME. IF YOU DO NOT HAVE ACCESS TO A SPECIALIZED PALEONTOLOGICAL LIBRARY, CHECK WITH YOUR BANK MANAGER ABOUT THE POSSIBILITY OF BUYING EISENACK'S "KATALOG" AS WELL. OTHERWISE, UNLESS YOU HAVE SPECIAL ICONOGRAPHIC ABILITY, THE DESCRIPTIONS MAY BE RATHER DIFFICULT TO FOLLOW WITHOUT RELEVANT ILLUSTRATIONS. NEVERTHELESS, THE SYNOPSIS OF THE GENERA ARE THE BEST PUBLISHED DESCRIPTIONS YET AVAILABLE TO THIS REVIEWER AND ARE A MODEL FOR SUCCINCTNESS AND CLARITY.

THE ANALYSES OF GENERA ARE GROUPED INTO THOSE WITH APICAL, INTERCALARY, PRECINGULAR, COMBINATION, OR "OTHER" ARCHEOPYLES RESPECTIVELY. THE DESCRIPTIONS OF EACH GROUP ARE PRECEDED BY TABULAR DATA INDICATING THE PERCENTAGE OF GENERA WITH SPECIFIC FEATURES SUCH AS SHAPE, CAVATION, SURFACE FEATURES, ARCHEOPYLE, AND SIZE, ALTHOUGH NO CONCLUSIONS ARE DRAWN FROM THIS. A WEALTH OF INFORMATION IS AVAILABLE IN THE TAXONOMIC SECTIONS WHICH WILL BE AN INVALUABLE SOURCE FOR THOSE WORKING WITH THE ORDER AND WILL DOUBTLESS BE A STARTING POINT FOR MANY FUTURE TAXONOMIC STUDIES.

IT IS INTERESTING TO NOTE THAT 1502 SPECIES ARE ASSIGNED TO THE 279 GENERA DESCRIBED UP TO EARLY 1977—AN AVERAGE OF 5.3 SPECIES PER GENUS. THIS IS MORE OR LESS IN ACCORD WITH BUJAK AND WILLIAMS' (1979) FIGURES WHICH SUGGEST THE

AVERAGE NUMBER OF SPECIES PER GENUS HAS REMAINED FAIRLY CONSTANT (BETWEEN 4 AND 5) FROM 1935 TO 1975. THE MODAL NUMBER OF SPECIES PER GENUS, HOWEVER, IS 1; 101 GENERA ARE MONOSPECIFIC AND MORE THAN HALF THE GENERA HAVE 2 OR FEWER SPECIES ATTRIBUTED TO THEM. THE HIGHEST NUMBER OF SPECIES PER GENUS (49) OCCURS RESPECTIVELY IN HYSTRICHOSPHAERIDIUM AND DEFLANDREA FOLLOWED BY SPINIFERITES (37). ONLY 45 GENERA HAVE MORE THAN 10 SPECIES EACH.

THIS HIGHLY SKEWED DISTRIBUTION OF SPECIES PER GENUS (SEE FIGURE) MAY BE RELATED TO THE STATE OF MATURITY OF STUDIES IN DINO CYST TAXONOMY. THUS THE TOP 3 GENERA IN TERMS OF SPECIES (DEFLANDREA, HYSTRICHOSPHAERIDIUM, AND SPINIFERITES) ALL DATE FROM AN INCEPTION IN THE 1930'S OR EARLIER. ON THE OTHER HAND, THOSE 13 GENERA WITH 20 TO 30 SPECIES EACH HAVE ALL BEEN DESCRIBED IN THE LAST COUPLE OF DECADES, AND SOME VERY RECENTLY AT THAT. PERHAPS THE LARGE NUMBER OF MONOSPECIFIC GENERA REFLECTS A FUNDAMENTAL MISUNDERSTANDING OF WHAT EXACTLY ARE GENERICALLY DIAGNOSTIC CHARACTERS. AS THE RESULTS OF MORE STUDIES BECOME KNOWN, WE MAY FIND MONOSPECIFIC GENERA BECOME "FILLED OUT" (THUS VINDICATING THE PRESENT TAXONOMIC APPROACH). ON THE OTHER HAND, THE NATURE OF DINOFLAGELLATE CYST DIVERSIFICATION MAY INDEED TEND TO BE DOMINANT AT THE GENERIC LEVEL.

STOVER AND EVITT ARE CAREFUL TO POINT OUT THAT THEIR GENERIC GROUPINGS ARE "PURELY PRAGMATIC AND MAKE NO PRETENSE OF BEING BIOLOGICAL IN ANY SENSE OF THE WORD" (P. 8). THEY CHOOSE TO SIDE-STEP THE ISSUE OF SUPRA-GENERIC CLASSIFICATION FINDING EXISTING SCHEMES FOR FOSSIL DINOFLAGELLATES DEFICIENT; FURTHERMORE, THEY BELIEVE THAT APPLICATION OF THE TAXONOMIC SCHEME FOR EXTANT DINOFLAGELLATES WOULD LEAVE A LARGE NUMBER OF DINOFLAGELLATES INCERTAE SEDIS BUT WOULD ALLOW MANY TO BE INCLUDED IN THE MODERN FAMILIES PERIDINIACEAE, GONYAULACACEAE, AND CERATIACEAE. SUCH A SITUATION IS TO BE EXPECTED IN AN ORDER WITH AN EVOLUTIONARY HISTORY OF MORE THAN 200 MA (MUCH LONGER IF PALEOZOIC OCCURRENCES OF PUTATIVE DINOFLAGELLATES ARE INCLUDED) DURING WHICH THE FOSSILIZABLE CYST-FORMERS REACHED PEAKS OF DIVERSITY IN THE MIDDLE AND LATE CRETACEOUS (LESS PROMINENTLY IN THE EOCENE) AND HAVE SUBSEQUENTLY DECLINED. NO AMOUNT OF ATTENTION TO THE CHARACTERS AND COMPARATIVE MORPHOLOGY OF EXTANT DINOFLAGELLATES WILL REALLY SOLVE THE SYSTEMATIC RELATIONSHIPS OF MESOZOIC SPECIES WHICH COMPRISE THE BULK OF ALL FOSSILIZABLE DINOFLAGELLATE TAXA. THE EXTANT CYST-FORMING DINOFLAGELLATE FLORA IS MERELY A SURVIVING TRICKLE AFTER THE MAJOR MESOZOIC RADIATION. THE PROBLEM OF SUPRA-GENERIC CLASSIFICATION MUST BE FACED, HOWEVER, PARTICULARLY WHEN A HIERARCHICAL TAXONOMIC SYSTEM IS EMPLOYED. SOME WOULD ARGUE THAT SPECIES ARE MADE BY GOD; THERE IS NO DOUBT, HOWEVER, THAT GENERA AND HIGHER TAXA ARE MADE BY MAN. ONCE THE GENUS IS RECOGNIZED, THE MECHANISM IS SET IN MOTION THAT INEVITABLY MUST LEAD TO RECOGNITION OF THE FAMILY AND HIGHER GROUPINGS. A WORK THAT ATTEMPTS TO STABILIZE CONCEPTS AT THE GENERIC LEVEL MUST HAVE SOMETHING TO SAY ABOUT SUPRA-GENERIC TAXA. STOVER AND EVITT ARE RELUCTANT TO DO THIS DIRECTLY, BUT IN ONE APPENDIX THEY CAST DOUBT ON THE ALMIGHTY ARCHEOPYLE AS A VALID GENERIC CRITERION. EARLIER IN "ANALYSES" THEY HINT THAT TABULATION PATTERNS SHOULD BE THE FOUNDATION OF A CLASSIFICATION SCHEME. IN THE OBSERVATIONAL SCIENCE OF SYSTEMATIC PALEONTOLOGY, CLASSIFICATION SCHEMES ACT EFFECTIVELY AS WORKING HYPOTHESES. WITHOUT HYPOTHESES, (CONT'D, P. 9)

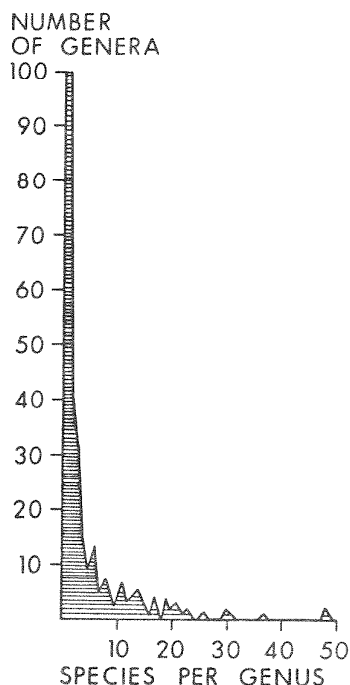
SCIENTIFIC METHODOLOGY IS STULTIFIED. ATTEMPTS AT HIGH-LEVEL TAXONOMY HAVE BENEFICIAL FEEDBACK ON DIAGNOSIS AND CIRCUMSCRIPTION OF LOWER-LEVEL TAXA. STOVER AND EVITT'S VIEWPOINT ON THE HIGH-LEVEL TAXONOMIC SIGNIFICANCE OF TABULATION OF FOSSIL DINOFLAGELLATES WOULD HAVE BEEN A VALUABLE ADDITION TO THE BOOK ALTHOUGH THEY CONSIDERED THAT INCLUSION OF SUCH DISCUSSION WOULD HAVE BEEN PREMATURE.

THE BOOK UTILIZES A COMBINATION OF TYPEFACES WHICH CLEARLY DISTINGUISHES VARIOUS SUBHEADINGS IN THE ANALYTICAL SECTION. IT IS ATTRACTIVELY BOUND IN A TOUGH, FLEXIBLE COVER WHICH WILL BE A BOON TO THE RESEARCHER AT THE MICROSCOPE BENCH.

MISTAKES ARE FEW. THE MOST SERIOUS IS THE ERRONEOUS CITATION OF LENTIN AND WILLIAMS (1977B) WHICH SERVES AS A NOMENCLATURAL STARTING POINT FOR THE BOOK. THE CORRECT CITATION FOR THIS REFERENCE APPEARS AT THE END OF THIS REVIEW. TABLE 5 IS BADLY MUDDLED: THE SECOND COLUMN FROM THE LEFT SHOULD BE TERMINATED UPWARDS ONE HALF INCH LOWER THAN IT IS; THE THIRD COLUMN FROM THE LEFT IS REDUNDANT AND SHOULD BE DELETED. THE SPECIMENS OF GONYAULACYSTA FROM WHICH DETAILS OF PRE-APICAL TABULATION WERE DETERMINED (P. 277) PRESUMABLY COME FROM THE CURTIS FORMATION (NOT FOUNDATION).

ALL THE ABOVE CRITICISMS ARE COMPARATIVELY MINOR. THIS IS A SUPERB BOOK THAT NO ONE SERIOUSLY INTERESTED IN FOSSIL DINOFLAGELLATES CAN AFFORD TO BE WITHOUT. IT WILL UNDOUBTEDLY SERVE AS A STANDARD FOR GENERIC CIRCUMSCRIPTION AND BE A VADE MECUM FOR PALYNOLOGISTS FOR YEARS TO COME.

GEOFFREY NORRIS



REFERENCES

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POLLEN FLORA OF ARGENTINA: MODERN POLLEN AND SPORE TYPES OF PTERIDOPHYTA, GYMNOSPERMAE, AND ANGIOSPERMAE, BY VERA MARKGRAF AND HECTOR D'ANTONI; UNIVERSITY OF ARIZONA PRESS; 1978, ix + 208 p., 43 pls., ISBN-0-8165-0649-3, \$9.50

THIS EXCELLENT, COMPREHENSIVE POLLEN ATLAS IS A DETAILED SOURCEBOOK WITH PHOTOMICROGRAPHS, MORPHOLOGIC DESCRIPTIONS, AND KEYS FOR 374 POLLEN TYPES. IT INCLUDES INDICES DIVIDED INTO PLANT FAMILIES, SPECIES AND COMMON NAMES. THE KEYS ARE DIVIDED INTO 4 PLANT GEOGRAPHIC REGIONS FOR PALYNOLOGIC WORK IN SIMILAR AREAS OF PLANT GEOGRAPHY OUTSIDE THE POLITICAL BOUNDARIES OF ARGENTINA, A MOST USEFUL FEATURE. ALSO INCLUDED ARE AN EXCELLENT GLOSSARY AND BIBLIOGRAPHY, WHICH SHOULD BE A USEFUL STARTING POINT FOR PALYNOLOGISTS AND OTHERS WISHING TO FAMILIARIZE THEMSELVES WITH THE POLLEN FLORA OF THIS AREA.

AS IS ALWAYS THE CASE, BOOKS IN PALYNOLOGY HAVE A SMALL POTENTIAL BUYING MARKET. HOWEVER, THIS SUPERB POLLEN ATLAS NOT ONLY BELONGS ON THE SHELF OF ALL PALYNOLOGISTS, ESPECIALLY THOSE WITH HOLOCENE AND QUATERNARY INTERESTS, BUT ALSO SHOULD BE OF GREAT INTEREST TO PHYTOGEOGRAPHERS, PLANT SYSTEMATISTS AND OTHER PLANT SCIENTISTS WHO HAVE RESEARCH INTERESTS OF ANY KIND IN THE SOUTHERN PART OF SOUTH AMERICA. IN ADDITION, ARCHEOLOGISTS, WHOSE CULTURAL DATA INCLUDE PLANT MICROFOSSILS, WILL FIND THIS AN INVALUABLE REFERENCE BOOK FOR THEIR PURPOSES.

THE AUTHORS, BOTH ARGENTINIANS, ARE ASSOCIATED WITH THE UNIVERSITY OF ARIZONA. VERA MARKGRAF, A STUDENT OF MAX WELTEN IN BERNE, IS PRIMARILY A QUATERNARY CLIMATOLOGIST. HER COAUTHOR, HECTOR D'ANTONI, A STUDENT OF T. VAN DER HAMMEN IN THE NETHERLANDS, ALSO HAS AN ANTHROPOLOGICAL AND ARCHEOBOTANICAL BACKGROUND. BECAUSE OF THESE INTERESTS, HE IS A KEEN ADVOCATE OF THE USE OF POLLEN IN TRACING THE HISTORY OF MAN, HIS FOOD PLANTS, AND HIS ANIMALS, THROUGHOUT THE AMERICAS. BOTH AUTHORS ARE CURRENTLY INVOLVED IN SUCH RESEARCH AT ARCHEOLOGICAL SITES IN SOUTHERN SOUTH AMERICA.

BECAUSE I AM ALSO INVOLVED IN SIMILAR WORK IN THE ANDEAN AND COASTAL AREAS OF WESTERN SOUTH AMERICA, I CAN PARTICULARLY WELL APPRECIATE THE EXCELLENCE OF THEIR ACCOMPLISHMENT IN THIS WORK. I WOULD STRONGLY RECOMMEND IT TO WORKERS WITH ECOLOGICAL, PALEOENVIRONMENTAL AND PALYNOLOGICAL INTERESTS IN ALL PARTS OF SOUTH AMERICA. THEIR MODEST FINANCIAL INVESTMENT IN THIS WORK WILL BE REWARDED MANY TIMES OVER. THIS ATLAS WILL CERTAINLY ALSO PROVE TO BE

(CONT'D. P. 10)

AN EXCELLENT ADJUNCT TEACHING TOOL FOR THOSE PALYNOLOGISTS IN ACADEMIA, WHO ARE WELL AWARE OF THE LACK OF ENOUGH SUITABLE MATERIAL FOR THESE PURPOSES. TEACHERS, STUDENTS, AND RESEARCHERS ALIKE WILL APPRECIATE THE EXCELLENT QUALITY OF THE KEYS AND PHOTOMICROGRAPHS IN THIS WORK. ALTHOUGH SUCH AIDS CAN NEVER REPLACE THE USE OF ACTUAL POLLEN REFERENCE SPECIMENS, THEY WILL GO A LONG WAY TOWARD FAMILIARIZING ONE WITH THE BASIC REFERENCE DATA, AND PROVIDE A RAPID MEANS OF SCANNING A LARGE NUMBER OF POLLEN TYPES, IN ORDER TO CATEGORIZE AN UNKNOWN GRAIN. THE HIGH QUALITY PHOTOMICROGRAPHS ARE ALSO A USEFUL DEVICE FOR FAMILIARIZING STUDENTS, AT ALL LEVELS OF ACCOMPLISHMENT, WITH THE RANGE OF FEATURES AND MORPHOLOGY OF THE POLLEN FLORA OF THIS AREA.

MY ONLY RESERVATIONS CONCERN THE SPIRAL-BOUND NATURE OF THIS PAPER EDITION (IT TENDS TO COME APART WHEN DROPPED), AND THE DISADVANTAGE OF HAVING TO SCAN 4 DIFFERENT KEYS WHEN ONE IS UNSURE AS TO WHICH OF THE 4 PHYTOGEOGRAPHIC PROVINCES A POLLEN UNKNOWN BELONGS. HOWEVER, IN THE FORMER CASE, THE MODEST PRICE OF THE PAPER EDITION MORE THAN OFFSETS THE OCCASIONAL DIFFICULTY, AND IN THE LATTER CASE, THE UTILITY OF THE SEPARATE KEYS FOR USE IN SIMILAR PLANT AREAS OUTSIDE ARGENTINA COMPENSATES FOR THIS MINOR INCONVENIENCE IN THE USE OF THE KEYS.

I ENTHUSIASTICALLY URGE EACH OF YOU WITH ANY OF THE ABOVE INTERESTS TO PURCHASE A COPY FOR YOUR LABORATORY OR REFERENCE SHELF. IT WOULD BE DIFFICULT TO FIND A BETTER BARGAIN IN THIS DAY AND AGE,

GLENDON H. WEIR

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ROCKY MOUNTAIN HIGH--KEYSTONE '80, BE THERE!

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