

# **INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS**

**Feb  
1974  
No. 17**

## **NEWS LETTER**

### **PROFESSOR DOEGLAS**

It is with deepest regret that I report the death of Professor D.J. Doeglas on the morning of January 2nd at the age of 68 years. He had been ill for some time with a heart affection.

No one has done more for the Association than he. He was one of the founders and he started the journal. He was the first President and later General Secretary for many years. We shall sadly miss his presence and wise council.

# ASSOCIATION NEWS

## NATIONAL CORRESPONDENTS

George de Vries Klein has very kindly accepted an invitation to take over the post of National Correspondent for the U.S.A. from Gerry Friedman.

## REPORT OF GENERAL SECRETARY

A year has now passed since the Association changed onto a new financial basis with a different publisher. It is now possible to report progress and assess some of the results. Not everything has gone smoothly and mistakes have occurred, but on balance I am pleased and I hope that members are reasonably satisfied.

Membership has increased from about 700, with 400 subscribers, to 775 at the end of the year, all of whom subscribe to the journal. Thus nearly twice the number of a year ago now have the journal on their shelves. New members are still coming in fast and there is certain to be a further substantial increase in 1974. Much depends on individuals persuading or just reminding colleagues and students of what the Association has to offer and what they can contribute to the Association. It is a disappointment that the number of members from the U.S.S.R. and eastern European countries has decreased. We have found no way of helping prospective members there to obtain foreign currency. One way that some members might help is, if they visit these countries, by offering to pay the subscription of a friend whose hospitality they have enjoyed.

Financially we are strong. Our accounts (published in Newsletter No 16) showed a large surplus for 1972. It is too early to assess the results for 1973. Our income should be larger, in spite of the reduced subscription, because of the increase in membership and the new arrangements with the publisher. Our expenses will also be larger, mostly because of the increase in the activities of the Association.

When I started this series of Newsletters I promised that they would be published at least twice a year. In fact they have appeared 4 times, with every issue of Sedimentology, and this is a practice I hope to continue. May I remind members that anyone can contribute to the Newsletter, not only National Correspondents. I want news of forthcoming meetings of sedimentological interest and also of publications of books, special issues of journals and other publications that may be of interest to sedimentologists but which are not widely advertised. When giving this information please let me know the cost and from whom the publication can be obtained. Material for the Newsletter must reach me at least a month before the publication dates of Sedimentology.

We have had problems during the year. The change over of publishers was not as smooth as we would have liked. Blackwell had

difficulties in their despatch department and some members failed to receive some copies of *Sedimentology* and the Newsletter. I hope that this year these troubles will not recur. The paper used in the first parts of *Sedimentology* was an inferior grade and some of the plates were not as good as they should have been. This is very disappointing to the authors whose photographs suffered and to whom I apologize. You may have noticed that there was a very great improvement in the plates before the end of the year and I think these now come up to the high standard reached by Blackwell in the text and line drawings. There were delays of up to 3 weeks in the despatch of the journal. As the Blackwell staff become more experienced and as we have changed the schedule I hope the delay will disappear.

The Council and Bureau are meeting much more frequently than in the past to discuss the affairs of the Association. During 1973 we had 3 Council/Bureau meetings, in Oxford, Chamonix and Zürich and our next one is in Bochum in March.

We had our first regional meeting in Zürich in September 1973. For those of us who attended it was a very great success. Some 150 persons attended the sessions devoted to Pelagic Sediments and the mixing of geophysicists, oceanographers and sedimentologists was good for all of us and our disciplines. I should like to thank Ken Hsü and Hugh Jenkyns and the staff at Zurich for excellent programming. Anyone who has an idea for organizing a regional meeting should write to me if he thinks that doing it through the auspices of the I.A.S. would be a help.

Before the end of the summer our first Special Publication "Pelagic Sediments" should be published. All the papers are in and are now going to the publisher. The exact size and price are not yet known but the volume will be about 350-400 pages, in Sedimentology style, and will be sold to members for about £4.00-£5.00.

I should like to offer congratulations on behalf of the Association to Professor Gerry Friedman on being elected to the Presidency of S.E.P.M. It well illustrates the common purpose of our two societies that our Vice-President should receive this honour.

# WORLD NEWS

## BRAZIL (from J.M. Mabesoone)

The XXVIIth Congress of the BRAZILIAN GEOLOGICAL SOCIETY was held in Aracajú (Sergipe State), from October 28 - November 4, 1973. The Technical-Scientific Commission of Sedimentology had its own section in which 9 contributions were presented. Besides this section, various symposiums were held on sedimentological subjects, such as Evaporites in Brazil and Petroleum Geology; other papers on sediments were presented in the section of Marine Geology and Quaternary. Sedimentological studies in Brazil are very much in advance due to the increasing knowledge on the stratigraphy of the country.

In the University of Pernambuco, at Recife, a Master Course in Sedimentary Geology was established, still more increasing the interest in problems of sedimentology.

The 2nd volume of the review *Estudes Sedimentológicas* is in press, to be published in January 1974, with a number of contributions on recent investigations.

## FRANCE (from B. Beaudoïn)

En Octobre 1973 a été lancée auprès des membres de l'Association des Sédimentologistes Français une enquête sur leurs activités de recherche. Une soixantaine de réponses nous sont parvenues, permettant d'établir ce premier bilan, accompagné d'éléments bibliographiques correspondant aux trois dernières années.\* Autant que possible ont été respectées les indications reçues de nos collègues ce qui explique le manque d'homogénéité des présentations.

seront présentées successivement les recherches ayant trait (surtout) à l'actuel, puis le Quaternaire, la sédimentation continentale, la Géochimie, les recherches sur les dépôts anciens.

### G. ALLEN (Brest)

Processus sédimentaires de l'estuaire de la Gironde. Application de l'analyse statistique numérique aux problèmes sédimentologiques. Traçage de sédiments radioactifs en milieu littoral et estuarien.

Estuaires de "plaine côtière", processus et mécanismes de dépôt des vases en milieu littoral et estuarien.

---

\* Owing to the length of the original submission (29 pages), I have had to omit the reference lists from the Newsletter. I have made copies of the original, which include references for the past 5 years, and these can be sent to all who ask for them, on payment of £0.50 to Dept. of Geology, Oxford (General Secretary).

## FRANCE (continued)

## L. BARAILLER (Grenoble)

Évolution dans les estuaires à marées; protection des rivages, sédimentation dans les retenues; évolution des flèches littorales ou des fronts de deltas; écoulements de densité; coulées de boue; le transport de matériau dans les rivières et son influence sur la morphologie des lits ou les ouvrages.

## C. COPIN-MONTEGUT (Paris)

Étude chimique des particules en suspension avec l'eau de mer; évolution avec la profondeur, importance des apports terrigènes et des apports biogéniques; estimation de la participation des particules à la sédimentation marine.

## L. DANGEARD (Paris)

Océanographie profonde (volcanisme sous-marin; dépôts glacio-marins; pistes et traces profondes; courants profonds).

## P. GIRESSE (Congo), Laboratoire de Géologie, Brazzaville.

Sédimentologie du plateau continental; minéralogie des grains authigènes (Congo, Gabon); authigénèse de la glauconie et diagénèse récente. Dynamique sédimentaire fluviatile et marine au Congo et au Gabon; Sédimentologie des dépôts quaternaires et néogènes (phosphates du Congo).

## KOUYOU MONTZAKIS (Congo)

Sédimentation et écologie du Quaternaire littoral et sous-marin du Congo et des régions voisines.

## MASSENGO (Congo)

Sédimentation actuelle et fossile du fleuve Congo.

## MOGUEDET (Congo)

Sédimentologie et Géochimie du système lagunaire du Congo et des régions voisines.

## H. GOT (Perpignan)

Structure et nature des séries sédimentaires marines récentes; radioactivité des sédiments; application au précontinent pyrénéo-catalan; structure, sédimentation et histoire des canyons méditerranéens; géochimie des radio-isotopes: relations avec la matière organique et les argiles (coll. avec F. GADEL et A. MONACO).

## A. MONACO (Perpignan)

Les dépôts quaternaires dans le cadre morphotectonique sous marin; chronologie du remplissage du plateau continental; mécanismes de la sédimentation récente à travers la nature des associations minérales argileuses. Influence des divers facteurs liés à l'environnement marin; géochimie des argiles; définition du rôle des minéraux argileux dans la fixation des cations métalliques.

## FRANCE (continued)

G. PAUTOT (Brest)

Couverture sédimentaire des bassins océaniques et des marges continentales par méthodes indirectes (sismique) et méthodes directes (étude des prélèvements = carottes, dragages, forages JOIDES); étude du bassin méditerranéen, des marges atlantiques et du bassin Pacifique SE.

J.C. PLAZIAT (Orsay)

Paléogéographie et paléoécologie de l'Eocène: caractérisation des milieux de transition entre domaines marins et continental; littoraux tropicaux actuels (Nlle Calédonie, Cameroun, Polynésie).

A. RIVIERE (Orsay)

Sédimentologie littorale et lagunaire; sédimentation calcaire en milieu lagunaire. Utilisation des radioactivités naturelles en sédimentologie (Golfe du Lion, côte atlantique). Terrains récents de la côte atlantique: stratigraphie des dépôts, phases glaciaires. Phénomènes de cryoturbation. Oligocène du bassin de Bages Sigeau. Méthodes nouvelles d'interprétation granulométriques.

G. ROFES (Paris)

Hydrobiologie. Dépôts lacustres et fluviaux.

F. RUELLAN (La Richardais)

Géomorphologie et Sédimentologie du Golfe Normand Breton.

R. FACON (Poitiers)

Remplissage des grottes à industrie ou à faune; sédimentologie des terrasses fluviales.

J.C. MISKOVSKY (Paris)

Stratigraphie et paléoclimatologie du Quaternaire du Midi méditerranéen d'après l'étude sédimentologique du remplissage des grottes et abris sous roche.

P. RENAULT (Villeurbanne)

Milieu continental, remplissages karstiques; en particulier remplissages des galeries de grottes et remplissages des dépressions karstiques; gaz carbonique dans le sous-sol d'un karst; rapport morpho-sédimentaires entre la surface et le sous-sol d'un karst. Elaboration d'un modèle évolutif d'un massif de roche soluble.

R. BROSSE (Angers)

Sédimentologie continentale; recherches sur la Loire continentale.

F. CROUZEL (Toulouse)

Sédimentologie continentale du bassin molassique d'Aquitaine.

P. FREYTET (Orsay)

Etude des milieux continentaux = altération, sédimentation fluviale et lacustre, paléosols ....

J. DUPUIS (Poitiers)

"Pédologie des pays atlantiques"; évolution et rôle de la matière

## FRANCE (continued)

organique dans les sols. Sols de polders. Podzols des Landes du Medoc. Cartographie pédologique.

## M. MAINGUET, (Reims)

Compartement et modèle des roches sédimentaires en particulier des grès et des calcaires. Etude zonale de ces divers modèles; dynamique de l'accumulation éolienne. Typologie des dunes dans le cadre des ergs. Relations des types de dunes les unes avec les autres.

## V. CALLOT

Relations surface-profondeur dans les paysages calcaires.

## M. MAINGUET, N. DUNET

Paysages gréseux en République Centre-Africaine.

## A. CAILLEUX (Canada)

Sédimentologie sous climat froid ( $t < 4^{\circ}\text{C}$ ) en particulier niveo-éolien; concrétions calcaires; micro-failles et autres cryoturbations; ferruginisations secondaires; tourbières à pales et autres tourbières structurées; dunes paraboliques ou à caoudeyres.

## J.C. FONTES (Paris)

Géochimie et Géochimie isotopique appliquée aux problèmes d'eau et de sédiment; phénomènes d'évaporation; origine et genèse des évaporites; diagenèse des carbonates (dolomitisation); sondage des mers profondes.

## G. ODIN (Paris)

Genèses phylliteuses marines en particulier des minéraux de la famille de la glauconite.

## J. TRICHET (Orléans)

Sédiments carbonates (minéralogie et géochimie); sédimentation de la matière organique; sédimentation des éléments métalliques de transition.

## B. BEAUDOIN (Paris)

Sédimentologie dynamique = méthodes de reconstitution des processus physiques et des conditions du dépôt, architecture du bassin; figures et structures sédimentaires - analyse séquentielle. B. BEAUDOIN (Jurassique supérieur-Berriasien subalpin); A. COADOU (Lias subalpin). J. LAVERSANNE (Permien de Lodève); B. BEAUDOIN, P. GIGOT, D. HACCARD. = flysch et molasse; M. CONARD Crétacé supérieur (arc de Nice). Orientation de faune (B. BEAUDOIN, A. COADOU, M. PINAULT, M. CONARD.) Phénomènes de slumping (B. BEAUDOIN, D. LE DEUFF, M. PINAULT, A. COADOU.) Corrélations lithologiques et analyse mathématique des rythmes) B. BEAUDOIN, A. COADOU, J. LAVERSANNE, D. LE DEUFF, M. CONARD. Contexte sédimentaire des minéralisations. J. LAVERSANNE, A. LESAVRE, B. BEAUDOIN.

## J.J. BLANC (Marseille) Centre d'Océanologie d'Endoume.

Sédimentologie, pétrologie et paléogéographie des faciès carbonatés du Barrémien et de l'Aptien dans le SE de la France; cimentations sous marines carbonatées; cartographie géologique et sédimentologique

## FRANCE (continued)

sous marine. Aménagement du littoral et sédimentologie dynamique; sédiments profonds de la Méditerranée = argiles, formainifères, séquences paléoclimatiques; remplissage des cavernes, karts sous marins, étude des concrétions.

J.P. MASSE (Endoume)

Sédimentologie des milieux carbonatés de plate-forme ("Urgonien" de Provence"); Paléoécologie; formations cryptalgales (stromatolites et formes associées). "Récifs" à Madrépores.

J.M. PHILIP (Marseille)

Formations récifales du Crétacé supérieur: reconstitution d'un modèle récifal du Cénomane.

P. COTTILLON (Villeurbanne)

Processus de sédimentation et diagénèse des séries carbonatées et argilo-carbonatées des Chaînes subalpines méridionales. Calcaires blancs de Provence; sédimentation ralentie et discontinue; stratification dans les séries alternantes argilo-calcaires.

G. LATREILLE: Neogène de la Vallée du Rhône; G. FOURY: Crétacé inférieur du Ventoux-Lure; M. RIO: Silice des formations carbonatées du Mésozoïque vocontien; S. FERRY: Barremo-bédoulien vocontien; E. JOUTEE: Lias de Castellane.

J. DELFAUD (Oran)

(1) Département de Géologie d'Oran. Equipe sédimentologie. Sédimentation détritique du Maghreb (Jurassique, Crétacé, Oligocène); étude sédimentologique du Mio-Pliocène du Chélib (thèse J. NEURDIN); étude sédimentologique du Quaternaire continental de l'Oranie (thèse G. THOMAS); Jurassique et Crétacé inférieur d'Aquitaine = sédimentation calcaire de plate forme, dolomitisation; étude d'un modèle de sédimentation carbonatée couvrant le Haut-Fond occitan.

(2) Université de Bordeaux. Labo. de Géodynamique. Equipe sédimentation carbonatée et diagénèse (Prof. GOTTIS). Modèles du Jurassique du Sud de la France (de l'Atlantique au Rhône). Urgonien pyrénéen, dolomie des Causses, plate-forme turonienne, calcaire oligocène, calcaires lacustres cénozoïques; sédimentation flysch des Pyrénées (thèse LENGUIN); diagénèses calcaires (thèse SELLIER).

B. ALPERN (Creil)

Pétrographie de la matière organique concentrée (charbons, bitumes) ou dispersée dans les sédiments.

B. BUSSON (Paris)

Etude du Mésozoïque saharien. Evaporites du Dévonien moyen de l'Ouest Canadien; genèse et relation avec les carbonates; étude des laminites à alternance de calcaire et de matière organique ou bitumineuse.

J.P. LOREAU (Paris)

Sédiments aragonitiques et leur genèse; sédimentation calcaire au Jurassique supérieur dans le S et le SE du Bassin de Paris.



## FRANCE (continued)

## J. PERRIAUX (Grenoble)

Equipe sédimentologie de l'Institut Dolomieu. (A) Relations entre la sédimentation détritique et l'orogénèse; relations entre les caractères descriptifs et la genèse des deux grands groupes de sédiments détritiques (flyschs et molasses); Permo-Trias détritique de Belledonne; sédimentation nummulitique détritique (Grès d'Annot, du Champsaur; flysch des Aiguilles d'Arves; Tertiaire du Devoluy, des Bauges). (B) La sédimentation carbonatée des chaînes subalpines.

## C. POMEROL (Paris): (Groupe d'Etude des bassins sédimentaires).

Conditions de sédimentation dans le Bassin de Paris et les bassins nordiques = éléments détritiques, carbonates et microfaunes associées, géochimie des sédiments. Etude sédimentologique du Bassin de Majunga. Nannoplancton calcaire à la limite Crétacé-Tertiaire dans le Bassin de Majunga (Madagascar) par K. PERCH-NIELSEN et Ch. POMEROL; étude géologique détaillée du Crétacé supérieur et du Paléogène dans le sondage des Hogues (Eure) par M. SLANSKY, P. BASSOMPIERRE, J.C. ROUX, P. SINGNIER, C. CAVELIER, A. FAURE, F. SOMMER, J. TOURENQ, N. TRAUTH, C. MONCIARDINI, J.J. CHATEAUNEUF, C. POMEROL; étude géologique du sondage de Cassel (Nord) par G.S. ODIN, BLONDEAU A., DAMOTTE R., DURAND S., OLLIVIER-PIERRE M.F., LE CALVEZ Y., LEZAUD L., PERREAU M., C. POMEROL.

## J.P. DESCAVES (Maizières-les-Metz)

Etude du bassin lorrain: corrélations; niveau minéralisé et morts-terrains; évaluation des réserves par krigeage.

## J. CHALARD (Douai)

Paléontologie, stratigraphie du Bassin Houiller du Nord-Pas de Calais.

## L. COUREL (Dijon)

Paléogéographie et sédimentologie dans le domaine des détritiques; Trias et Rhétien de la bordure Nord et Est du Massif Central; modalités de la transgression mésozoïque (thèse 1970); essai sur les sables albiens dans le SE du Bassin de Paris; remplissage cressan au Tertiaire; Modalités de passage des faciès continentaux à marins au Trias, dans l'Est de la France.

## D. FANTINET (Paris)

Paléozoïque supérieur du Sud du Portugal (séries de type flysch).

## F. ORSZAG (Orsay)

Miocène de Corse et Sardaigne.

## A. PELHATE (Brest)

Etude sédimentologique de Carbonifère inférieur du bassin de Laval (thèse 1967); étude stratigraphique et sédimentologique des "schistes de Chateaulin"; étude des détritiques et carbonates.

## N. TOUTIN (Nice)

Sédimentologie des formations secondaires et tertiaires au Sahara central (Algérie); formations marines (Cénomaniens-Turonien) ou continentales (Continental Intercalaire).

## FRANCE (continued)

R. TROMPETTE (Marseille)

Perspectives sédimentologiques (dans le cadre "Etude géologique W. africaines"); stromatolites et sédimentation carbonatée; sédimentation glaciaire (avec M. DEYNOUX).

G. de BELINKO (Paris)

Phosphatogénèse.

(from G.P. Allen)

An international symposium on "Interrelationships of Estuarine and Continental Shelf Sedimentation" was held in Bordeaux, July 9-14, 1973. This meeting was sponsored by the Institut de Géologie du Bassin d'Aquitaine, an oceanographic and geologic research institute of the University of Bordeaux. The purpose of the symposium was to synthesize and evaluate recent developments in research concerning sedimentary processes in estuary-shelf systems, as well as delineating goals for future study.

The meeting attracted an international group, totalling 104 geologists, oceanographers and engineers, from the USA, France, Canada, Great Britain, Germany, The Netherlands, Belgium, Italy, Spain, Norway and Japan. 70 papers were presented in four one day sessions, which were grouped into the following topics:

- (1) Hydrology and suspended sediment transport in estuary-shelf systems.
- (2) Bedload transport and regional syntheses of estuary-shelf systems.
- (3) Present day sedimentary facies; Holocene and ancient analogues.
- (4) Methodology for assessing sedimentary processes; miscellaneous subjects.

The papers covered a wide range of subjects, but they were knit together by a common interest in understanding interrelationships between estuaries and continental shelves, particularly the dynamic aspects of sedimentary processes. The papers synthesize the present status of research in this field, and delineate the knowledge gaps requiring future study.

A post-conference field trip was held on July 12-14 on the northern Aquitaine coast. This excursion examined present day sedimentary phenomenon and accumulations occurring in the bay, beach, lagoonal, tidal flat and estuarine environments in Arcachon Bay, Marennes-Oleron Bay and the Gironde estuary.

There will be two publications concerning the symposium: a symposium proceedings volume, and the field trip guidebook (Environments and Sedimentary Processes of the North Aquitaine Coast, 106 p.) These publications will be available in Spring, 1974, at a cost yet to be determined. Anyone interested in eventually purchasing one or both of these publications should write to: Miss Eliane Gonthier, Laboratoire d'Océanographie, Institut de Géologie du Bassin d'Aquitaine, Avenue des Facultés, 33405 Talence, France.

## BELGIUM (from Cl. Monty)

On May 1973 a colloquium was organized in Liège by the Center for Paleocological and Sedimentological and Sedimentological Analysis on the theme "Aspects of reefs and sedimentological studies". Communications were presented by J. HUBBARD (London): "Coral colonies as micro-environmental indicators". J. SCHROEDER (Berlin): "Carbonate cements in Recent reefs of the Bermudas and Bahamas - Keys to the Past?". H. ZANKL (Marburg): "Construction of Recent Reefs as a think-about for the interpretation of fossil reefs". A. LEES (Louvian): "Contrasts between Recent warm- and coldwater shelf carbonates: significance for the interpretation of ancient Limestones". R. GARRISON (Santa Cruz): "Sedimentation and diagenesis of pelagic sediments: observations from the deep-sea floor and in Mountain Ranges". J.W. MURRAY (Vancouver): "Pattern of deformation, sedimentation and tectonism - Southwestern Canadian Continental Margin".

These papers will appear the Ann. Soc. Géol. Belgique, V.98, no 1, 1974.

## Research

### University of Liège

Researches conducted on the Great Barrier Reef sediments by Cl. Monty and his collaborators resulted in interesting results, mainly on the facies distribution on and around the Lizard Id Reef Complex on the one hand, on the selective pyritisation of Recent Foraminifera on the other. Investigation of manganese nodules from the Atlantic, actually in progress, suggest that these nodules would be bacterial stromatolites (Research coordinator, Cl. Monty, Laboratoire de Paléontologie animale).

The laboratory of physical geography concentrates (1) on Recent fluvial deposits and fluvial dynamics. A computer programme has furthermore been written in FORTRAN IV for the calculation of the statistical parameters of terrigenous sediments (Mrs S. Alexandre Pyre); (2) on Quaternary and Recent littoral deposits of Northern Sardinia; are mainly considered the granulometry and morphoscopy of eolian, fluvial and marine sands as well as the morphometry of boulders. Conclusions have been drawn on shore drifts (Mr A. Ozer).

The laboratory of Palynology has been concerned, since 1969, with the simultaneous study of the distribution of plant microfossils both in the shallow water sediments of the Upper Devonian and in various Recent coastal environments. Multivariate analysis is used to correlate quantitative palynological data and physicochemistry of sediments. Studies are finally carried in various estuaries to define "models" of distribution of palynomorphs applicable to ancient terrigenous formations (Dr M. Streef).

### University of Brussels

Three main international programmes are carried in the Laboratory of Geochemistry: (1) Study of the nature and size of suspended particles in oceanic waters, by means of SEM, microprobe and conventional

microscopy (2) Investigations on the nature of cosmic particles found in deep water oceanic manganese nodules (Pr. Jedwab); (3) Geochemistry and metallogeny of uranium in Permian continental sediments (Bassin de Lodeve, France). Interesting results have already been obtained on the factors controlling the distribution of U., Mo, Pb., Zn., in the strata; the observations have been extended to Recent sediments (Mr Herbosh).

The laboratory of Geology and stratigraphy concentrates on Middle Devonian sediments (Givet Group) of the Basins of Dinant and Namur. Definitive results will appear late in 1974. (Mr M. Errera).

#### Catholic University of Leuven

The Laboratory of Geomorphology and Sedimentology is mainly interested in the sedimentological problems of the Cenozoic of the Northern Sea Basin. A sedimentological map of the Southern Bight will sum up the analysis of 1400 bottom samples. The sedimentology of Belgian rivers and estuaries, as well as their evolution during the Holocene, is also considered. (Pr. Gullentops).

#### University of Mons

The laboratory of mineralogy has, for long, been concerned with the utilization of the Quartz thermoluminescence for the study of the dispersal of Recent sediments as well as for paleogeographical reconstructions. Application has been made to the distribution of the Quartz in the Golfe du Lion (Mediterranean sea); the various feeding zones (Rhône, Black Mountains, Eastern Pyrenees) have been characterized by different TL curves and the distribution of the different types has been traced on Recent Beaches, from Montpellier to Perpignan (Dr J.M. Charlet).

#### University of Louvain (Louvain-La-Neuve)

Pr. Lees and his collaborators are conducting two programmes on carbonates. The first one concerns Paleozoic carbonates and focusses on Waulsortian facies: one project is concerned with the Waulsortian of Belgium and Western Ireland, another with the sedimentology and paleoecology of its lateral equivalents as well as of the over- and underlying beds; a general picture of Waulsortian environment is aimed.

The second programme concerns Recent carbonates. One project studies the influence of temperature and salinity on the composition of Recent calcareous sediments. How do salinity parameters disturb the theoretical distribution of cold- and warm water carbonates? A second project concentrates on the origin, transportation and geochemistry of Recent carbonates of the Northern Atlantic (mainly Western Ireland, Hebrides, Western African Coast).

#### INDIA (from Supriya Sengupta)

Following is a list of the topics on which sedimentological studies are being conducted in some of the major Indian universities and research institutions:

Calcutta University

- (1) Recent sediments of the Upper reaches of the Teesta river in the Eastern Himalayas. (2) Vindhyan (Proterozoic) sedimentation in India. (3) Glacial sedimentation during the Talchir (Upper Carboniferous) times.

Indian Institute of Technology, Kharagpur

- (1) Sedimentology of the Lower Cuddapahs exposed on the western fringes of the Cuddapah basin. (2) Petrography and sedimentology of (a) the Panchet and Mahadeva Formations in the Latehar area of the Auranga basin, (b) Simla Slate series between Kandaghat and Simla, (c) Nagri Formation around Sri Kalahasti and Tirupati, (d) Subathu, Dagshai and Mahan Formations, Northwestern Himalayas.

Indian Statistical Institute, Calcutta

- (1) Proterozoic sedimentary rocks in the Godavari valley, Andhra Pradesh. (2) Gondwana sedimentary rocks in the Godavari valley, Andhra Pradesh. (3) Recent sediments of the Usri river, Bihar.

Jadavpur University, Calcutta

- (1) Precambrian tidal flat sedimentation in parts of the Vindhyan and Chattisgarh basins. (2) Petrology of the Banded Iron Formation of Singhbhum and Keonjhar.

Panjab University, Chandigarh

- (1) Krol sediments of the area around Solan, Himachal Pradesh. (2) Cenozoic sediments of Northwestern Himalaya. (3) Lower Tertiary sedimentary rocks of Sarahan-Dadahu and Morni regions. (4) Infra-Krol sediments around Solan, Simla hills, Himachal Pradesh. (5) Siwalik Formation of Morni-Moginand-Nahan region.

Regional Engineering College, Rourkela

Economic mineral deposits of the Gangpur Group (limestones).

Besides these studies, more specialised research on the mathematical and quantitative aspects of sedimentology are continuing in the following institutions of India:

Indian Statistical Institute, Calcutta

- (1) Analysis of "weight frequency data". (2) Sorting processes during transportation of sediments as bed load and suspended load.

Regional Engineering College, Rourkela

- (1) Bias-factors in loose-grain size measures. (2) Correlation of thin-section and loose-grain mean sizes. (3) Mathematical theory of sieving. (4) Statistical study of porous media. (5) Mathematical and statistical studies on clastic sediments.

## Other News

The Geological Survey of India has launched a programme of study of the Quaternary sediments of India. In order to equip the geologists with the background information necessary for this work, a three-week orientation "workshop" was organised in the Eastern Region of the Geological Survey of India, Calcutta, in August, 1973. The topics covered in the "workshop" included sedimentology, fluvial morphology, geochronology, etc.

## ISRAEL (from Eliezer Gavish)

### Societies and Meetings

The Geological Society of Israel has been holding annual meetings and interim symposia on many aspects of the geology of Israel. In recent years increasingly more of these sessions and field trips have been dedicated to pure and applied sedimentological problems. Since 1970 the subjects of these meetings were:

1970: Central and Southern Sinai - including studies of Pleistocene and Recent reefs, clastic and authigenic coastal deposits.

1971: Northern Sinai - including geochemical and sedimentological studies of sabkhas and eolian deposits.

1972: Studies of ancient carbonate deposits in Judea and Samaria.

1973: Developments in research of the coastal region and continental shelf along the Mediterranean in Israel.

Attached to the Geological Society are the Society for the Study of Pleistocene and the Society for the Study of Clays. These societies too conduct annual meetings and field trips which further contribute to sedimentological and closely associated studies.

In addition to the above activities, special symposia with guests from abroad and regular departmental colloquia, held in most institutions of high learning and research in Israel, are often dedicated to subjects in sedimentology. The extensive interdisciplinary and interdepartmental involvement and participation make these activities interesting and challenging.

The Israel Journal of Earth Science published in 1972 a Special Issue on Sedimentology with contributions from Israeli and European researchers.

### Research Projects

A cooperative project of data collection in the Gulf of Elat was undertaken by a number of researchers and their students from the Geology Dept of the Hebrew U., the Geological Survey of Israel, the Weizmann Institute in Rehovot, the Oceanographic Station in Haifa and the Biological Station in Elat. The project includes the study of sediment texture, mineralogy and transport in the Gulf and in areas marginal to it, as well as directions and intensities of currents, bottom

morphology, bathymetry, water chemistry and temperature gradients in the Gulf waters.

A number of research projects on the coastal plain and continental shelf of the Mediterranean in Israel are being conducted by researchers from the Marine Division and the Oil Division of the Geological Survey, the Tel Aviv University and the Institute for Study of Oil and Geophysics. The projects include studies of the texture, mineralogy and petrography of shallow-water and near-shore continental sediments with the purpose of reconstructing the paleoecology and environments of deposition as well as exploring for oil in this area.

#### NEW ZEALAND (from G.J. van der Lingen)

(1) The IX INQUA Congress was held in Christchurch from 2 - 10 December 1973. About 500 scientists from 45 countries attended. The congress ran smoothly, thanks to an excellent job done by the organising committee under the chairmanship of Professor Maxwell Gage. Among the many subjects covered in symposia and sessions were several of special interest to sedimentologists. To mention some: loess; tephrochronology; the deep-sea Quaternary record; till; Quaternary volcanism; paleolimnology; Antarctic environments; and paleopedology.

Pre- and post-congress excursions covered most of New Zealand. A few excursions travelled to other parts of Oceania, as well as to Australia and New Guinea.

(2) Deep Sea Drilling Project: The GLOMAR CHALLENGER first came to the southwest Pacific in November 1971. It returned for a second visit at the end of 1972. An impressive number of sites (30) have now been drilled in the area between Antarctica, Australia, New Zealand, New Guinea, and the Solomons-New Hebrides-Fiji-Tonga plate boundary. New Zealand scientists have taken an active part in the project. They are: Gerrit van der Lingen (legs 21 and 30); Tony Edwards (legs 21 and 29); Graham Jenkins (legs 9 and 29); Bob Hoskins (leg 20); Peter Barrett (leg 28); Derek Burns (leg 28); Peter Webb (leg 28); Peter Andrews (leg 29); and Jim Eade (leg 30).

Of the cruises which collected data of special interest to New Zealand, only the results of leg 21 have been published so far (volume XXI of the Initial Reports of the Deep Sea Drilling Project).

#### PUERTO RICO (from Nahum Schneidermann)

The Tenth Meeting of the Association of Island Marine Laboratories of the Caribbean was held on 4th to 7th September, 1973 in Mayaguez, P.R. Several sedimentological papers by local and guest geologists were presented. On October 5th, 1973, the Geological Society of Puerto Rico held its Annual General Meeting. Various technical papers were presented, among them "Continental shelf of central Venezuela - structure and sediments" (J. MORELOCK); "Foraminifera and continental drift" (G. SEIGLIE); "Stratigraphy and correlation of the Piasa limestone" (D. BEACH) and "Deep Sea Drilling Project in the Caribbean" (N. SCHNEIDERMAN). At

present there is no formal group of sedimentologists, but most of us are affiliated with SEPM or GSA.

Sedimentological research is concentrated in three areas:

(1) In San Juan, the U.S. Geological Survey has developed a cooperative programme in marine geology with Departamento de Recursos Naturales of the Commonwealth of Puerto Rico, under local supervision of J.V.A. Trumbull. The aim of the project is to train Puerto Rican personnel in field and laboratory techniques of marine geology and to prepare maps of the surface and subsurface distribution and structure of shelf sediments. The programme is developed in cooperation with N. Schneidermann and graduate students at the Univ. of Puerto Rico.

(2) In Mayaguez, at the Department of Geology, M.T. Moussa is studying textural characteristics, organic content, trace elements and insoluble residue of sediments from Jobos Bay and Islote Barceloneta. He is also studying the bioclastic turbidite sediments and submarine gravity gliding in southern P.R. The Holocene history of Jobos Bay as expressed in skeletal components is being described by G. Seiglie. Together with Moussa he is studying the paleoenvironment of deposition of Tertiary limestones. The paleoecology of the Cretaceous Parguera Limestone is being described by G. Pannella.

(3) Also in Mayaguez, J. Morelock from the Dept of Marine Sciences conducts studies on marine terraces in the Caribbean, bioturbation of marine sediments, sediment distribution and morphology of coral reefs and sediments and structure of Mayaguez Bay, P.R. He is supervising master theses on "Añasco canyon structure and sediments (Grinsfelder) and "Bioturbation of carbonate sediments" (Scott). N. Schneidermann from the same department is studying the petrography of the insular shelf sediments and their distribution, diagenetic processes in carbonates, deep sea sediments, particle characteristics and dispersal patterns of sugar can wastes. Dissertations on "Sedimentary facies of the Muertos shelf" (Beach) and "Distribution of foraminiferal assemblages on the insular shelf" (Albino) are being prepared under his supervision. C.E. Saunders has completed a dissertation on "Carbonate sedimentation on the inner shelf, Isla Magueyes" (see publications).

G. Shanley has recently completed (with N. Schneidermann) a study of circulation patterns and sediment distribution of Bahía Fosforescente. Orrin Pilkey from Duke University has conducted intensive research on shelf sediments of Puerto Rico while a visiting professor at the Department of Marine Sciences.

Publications

Saunders, C.E. and Schneidermann, N., (1973). Carbonate sedimentation on the inner shelf, Isla Magueyes. Univ. Puerto Rico Research Center. 1, (1), 77 pp.

(Available from N. Schneidermann, Dept Mar. Sciences, UPR, Mayaguez, P.R.

ROMANIA (from Dan Jipa)

Investigation of geosynclinal formations has a rather rich



tradition for Romanian geologists. Most of these scientists adopted the alpine, orogenic concept regarding the genesis and evolution of flysch and molasse. Challenging these old established concepts, sporadic un-orthodox ideas are now developing, considering the flysch a deposit with multiple characters, orogenic or non-orogenic, laid down in deep or shallow waters, due to turbidity and/or other types of currents. Interesting data concerning this subject are expected to be supplied by the study of the flysch-type facies existing in the Eastern Carpathian molasse. Some D.S.D.P. data regarding the sedimentation of certain large submarine cones are also interpreted in favor of the variability of flysch characters.

Increased consideration is given to the study of the marginal geosynclinal deposits, like coarse grained submarine fans.

An important activity of the Romanian sedimentologists is connected with the study of the Danube Delta. This subject is firstly approached through the investigation of the Holocene sediments, in order to get information on the genesis and evolution of the Delta. At the same time the modern sediments of the Danube Delta are studied from the sedimentological and biological viewpoint. A similar survey was carried out along the Lower Danube River (down-stream of Iron Gates).

The sediments of the Romanian Black Sea shelf are also systematically sampled and studied in order to produce different sedimentological distribution maps.

Clay minerals investigation of recent and older sediments produced several interesting results. The mineralogical and geochemical study of some Upper Triassic deposits in Apuseni Mountains revealed an evolution of the clay minerals assemblage, explained by the tectonic control of the environmental conditions at the weathering site. The Kaolinite Aptian clays from Dobrogea appear chiefly as a postdepositional kaolinisation product of a dominantly feldspathic material transported by rivers and deposited under continental or shallow marine conditions; a chemical and mineralogical differentiation controlled by processes proper to the siderolitic facies. The evolution in time and space of the Eastern Carpathian molasse is explained through the activity of two source areas, in agreement with the existing paleocurrent maps.

The mineralogy of the clay material in the recent sediments of the Lower Danube seems to depend on the various petrographical provinces crossed by the river. The final clay mineral assemblage contributed by the Danube River to the Black Sea is also influenced by processes of differential transport and sedimentation.

A recent clay mineralogy investigation, based on samples collected by R/V Pillsbury from the abyssal zone of the Black Sea, pointed out once more the activity of two source areas as well as the influence of the paleoclimatic history of the basin.

Romanian sedimentologists devote a growing interest to the study of carbonate and evaporite sedimentation. The carbonate sequence of

Central Dobrogea shows the following sequence of post-depositional processes: micritization of skeletal and oolitic grains; dolomitization on micritic fabrics; silicification on micritic fabrics and dolomitized areas; dedolomitization; and recrystallization of the dedolomitic microspar. Three isochronous facies zones have been distinguished by the investigation of a Lower Cretaceous formation of the deeply buried Moesian Platform: (1) a tidal-flat, cyclic carbonate evaporite sequence, (2) a bahamitic deposit representing a lagoonal facies and (3) a reefal, oolitic-skeletal facies. The analysis of the Lower Gypsum Formation of Transylvania shows that the penecontemporaneous dolomitization started with the conversion of the carbonate mud to dolomicrite, followed by the recrystallization to dolomicrospar. The particles resisting dolomitization being leached, the recrystallization continued in these new pores. The dolomite recrystallization appears to be similar to the limestone recrystallization as presented by Folk.

Lower Miocene detrital gypsum is being investigated. Besides primary structures, such as cross and parallel lamination and scarce flute casts, various interesting secondary features have been observed.

# FUTURE MEETINGS

June 1974

Leuven, Belgium

## Paleogene and Neogene sediments of Belgium

A 3 days field trip will be organized by the Soc. belge de Géologie et d'hydrologie. For details, contact Pr. Gullentops, Instituut voor Aardwetenschappen - Katholieke Universiteit te Leuven - Leuven, Belgium.

Summer 1974

St Croix

## Association of Island Marine Laboratories of the Caribbean

The Association contains biologists mainly, but also has geologists. The membership includes sedimentologists not residing in the Caribbean.

2 - 12 July 1974

Pointe à Pitre,  
Guadeloupe

## VIIth Caribbean Geological Conference

Several symposia will be organized, among them one on Marine Geology (M. Wright, coordinator) and one on Sedimentology and Petrography (Mme Bourroulin, coordinator). Details from: Dr R. Cousse, PO Box 448, 97159, Pointe à Pitre, Guadeloupe.

September (2nd half) 1974

Bellaterra and  
Trem, Spain

## 7th Congress of the "Grupo Español de Sedimentología"

The Congress is essentially a "pre-congress" to the IXth International Sedimentological Congress in Nice and will include scientific sessions and field trips. The inauguration and first series of sessions will be on the campus of Bellaterra. A second series of sessions and the field trip will be held in Trem (Lerida). During the field trip to the Trem region, the Upper Cretaceous transition from near-shore to deep-water deposits and Paleogene near-shore deposits of the Ager Valley will be visited. Details from the organizers, at the Departamento de Geología, Universidad Autónoma de Barcelona, Bellaterra, Barcelona.

15 October 1974

London, U.K.

## British Sedimentologists Research Group "The Geometry of River Deposits"

Two sessions entitled "Problems of Geometrical Interpretation" and "Fluvial Process Investigation" will be held. There will be 6 invited speakers and plenty of time for discussion. Details from: Dr Peter Friend, Dept of Geology, Downing Street, Cambridge.

## FUTURE MEETINGS (continued)

26 April - 4 May 1974 / 11 - 19 Oct. 1974

Miami, U.S.A.

Carbonate Facies, Field Seminars

Details from Dr R.N. Ginsburg, University of Miami, Fisher Island Station, Miami Beach, Florida 33139.

1975

Nice, France

Synthèse des Bassins : Sedimentary and Paleogeographic Evolution of Jurassic Basins in Western Europe

This is a long-term project whose objectives are the synthesis of all Jurassic basins which extend into France. The project is concerned directly with sediments and early diagenetic phenomena which will be described using a standard nomenclature and interpreted partly by analogy with modern sedimentary environments. It is less concerned with descriptive stratigraphy.

The immediate objective - for Nice, 1975 - is to demonstrate the vertical evolution of Jurassic sequences which characterise each basin (or parts of basins). These sequences should illustrate genetic units and sedimentary discontinuities ("hard grounds", discordances, etc) relating these to the classical biostratigraphic zones.

We hope that our British, German, Italian, Swiss and Spanish colleagues will join us in this project so that we can present together the beginnings of a coherent synthesis. Discussions will be held periodically during 1974 in order to coordinate this project. Those interested in participating in the project should contact immediately : B.H. Purser, Laboratoire de Géologie Historique, Faculté des Sciences, Université de Paris Sud, (91) Orsay, France.

Harold Reading  
(Acting General Secretary)  
Department of Geology  
Parks Road  
Oxford OX1 3PR, U.K.