

além disso, contêm grande quantidade de xenólitos, incluindo rochas de natureza crustal e do manto superior. Fato análogo se observa em relação aos corpos Limeira 2 e Indaiá 2.

Determinações geocronológicas, baseadas em traços de fissão de zircões, revelaram idades de 80 milhões de anos, indicando que os kimberlitos do Alto Paranaíba são do Cretáceo superior. Ao que tudo indica, a fase de intrusão desses kimberlitos está associada ao soerguimento do Alto Paranaíba, elemento estrutural ativo na área, durante o neocretáceo superior. — (9 de novembro de 1982).

FACIES AND SEDIMENTARY ENVIRONMENTS OF LATE PALEOZOIC DIAMICTITES AND ASSOCIATED ROCKS IN SOUTHERN PARANÁ AND NORTHERN SANTA CATARINA, BRAZIL — A.

C. ROCHA-CAMPOS AND J. R. CANUTO — *Departamento de Paleontologia e Estratigrafia, Instituto de Geociências, Universidade de São Paulo, São Paulo, SP* — Diamictites and associated lithologies of the Itararé Subgroup cropping out along three roads in southern Paraná and northern Santa Catarina (Campo do Tenente-Mafra, Palmeira-Irati, Lapa-São Mateus) seem to fit into at least three main facies recognized mostly on the basis of textures and structures of the diamictites and associated sediments, their mutual spatial relationships and features on the basement.

a) *Grounded-glacier/terrestrial facies*. Include both megascopically massive and stratified diamictites. The former occur as: a) discontinuous patches plastered on polished and striated small valleys or bosses of the Precambrian basement, passing upwards to grossly stratified diamictites and shales; b) compact and extensive bodies laterally associated with ridges of conglomeratic sandstone and overlain by grossly to thinly bedded diamictite. This is recovered by shale and rhythmite (varvite). The stratified diamictites may in addition form thinly and evenly laminated, laterally extensive bodies, showing folds and slump faults and including elongated (lenticular) bodies of massive diamictite, overlain by shale and rhythmite (varvite); and c) relatively thick bodies (several meters), massive at the base passing upwards to faint bedded and to clast laden rhythmite of diamictite and shale.

Types *a* and *b* seem to represent basal, ablation and flow tills associated with glacio-fluvial and glacio-lacustrine deposits. Type *c*, may represent a type of subaqueous (lacustrine?) debris flow.

b) *Deformed sandstone/flow-till facies*. This facies is characterized by sandstones, sometimes cross-bedded, intercalated with stratified diamictite, both complexly mixed and deformed, showing recumbent, hook and slump folds and faults.

Diamictites of these facies are interpreted as till which flowed downslope and mixed with sandstone in a subaqueous environment (marine or lacustrine).

c) *Glacial-marine till facies*. Diamictites of this facies are apparently massive to crudely stratified horizontal

thin (< 1 m), or very thick (up to 20 m) and widespread, megascopically massive but faint bedded bodies, associated with sandstone, shale with marine fossils and rhythmite (varvite). Burrows and trails of invertebrates are found inside or on top of the diamictites. Other diamictites of this facies may occur interbedded or mixed with sandstone both sometimes deformed folded and faulted.

This facies include tills which slumped or flowed downslope into a subaqueous (marine) basin. The massive and tabular horizontal bodies are more difficult to assess and at present they are interpreted as being deposited through a series of widespread debris-flows. Occurrence of varvites associated with marine shales in this facies seem to indicate alternation of fresh and marine waters in the sedimentation basin. — (9 de novembro de 1982).

CHAROPHYTA DA FORMAÇÃO SERRA ALTA, EM RIO PRETO, ESTADO DO PARANÁ — OSCAR

RÖSLER E ERICA D. ROBERTS, credenciados por A. C. ROCHA-CAMPOS — *Instituto de Geociências, Universidade de São Paulo, São Paulo e Universidade de Campinas, Campinas, SP* — Este trabalho descreve oogônios fósseis de Charophyta, da Formação Serra Alta, aflorante na estrada que liga Rio Preto a Irati, no Estado do Paraná. Apresentam-se sob a forma de moldes, geralmente revestidos por película carbonosa amorfa. Mais de uma centena de moldes foi coletada, dos quais foram selecionados vinte e um melhor conservados, para estudo detalhado. Destes, onze aparecem em vista lateral, dois em vista basal e os restantes em posições intermediárias. Os moldes em vista lateral têm suas alturas variando entre 0,6 e 1,1 mm e larguras máximas entre 0,7 e 0,9 mm. As células envolventes estão representadas por sulcos que, em vista lateral, chegam a formar 9 faixas visíveis.

O material estudado apresenta grande semelhança com *Leonardosia langei* Sommer, 1954, que ocorre nas Formações Serra Alta e Teresina, ou equivalentes, nos Estados do Paraná, São Paulo e no Paraguai, sempre dentro da unidade fitoestratigráfica D. — (9 de novembro de 1982).

NOVA PETRÓPOLIS: A NEW BRAZILIAN METEORITE FROM RIO GRANDE DO SUL — HARDY

GRUNEWALDT, presented by CÂNDIDO SIMÕES FERREIRA — *Porto Alegre, RS* — With the help of Prof. Mentz Ribeiro, archeologist of the *Faculty of Philosophy, Science and Letters of Santa Cruz do Sul* and Dr. Victor V. Ganz, *Director of the Bom Pastor School, in Nova Petrópolis County*, we could contact the discoverer of a new meteorite for the Rio Grande do Sul State, Mr. Lindolfo Staudt, who found the object while working the soil in his farm in May 16th, 1967. With his permission we cut out some small pieces that were sent to Prof. E. King, in Houston, Texas, U.S.A., for analysis with the consequence that the material has proved to be a metallic meteorite.

After some bargaining we purchased the meteorite (305 kg) and took it with us to Arroio do Meio where we live.