

## **EL NEOPALEOZOICO DE LA PUNA ARGENTINA, SU FAUNA Y RELACIÓN CON ÁREAS VECINAS**

F. G. ACEÑOLAZA

Instituto Miguel Lillo

San Miguel de Tucumán, Argentina

J. L. BENEDETTO y J. A. SALFITY

Facultad de Ciencias Naturales, Universidad Nacional de Tucumán  
Salta, Argentina

En este trabajo se dan noticias del reciente hallazgo de estratos neopaleozoicos en la Puna argentina. Los afloramientos se localizan en la provincia de Salta, a pocos kilómetros del límite internacional con Chile.

La sucesión se apoya en discordancia sobre capas del Devónico Inferior siendo en ella factible reconocer dos unidades litológicamente diferenciables. La inferior está compuesta por areniscas rojas con intercalaciones conglomerádicas y pelitas que contienen icnitas y restos vegetales. La superior está compuesta por una secuencia estratificada de calizas laminadas y masivas de color gris blanquecino u ocre amarillento, con abundantes nódulos de ftanita y restos de invertebrados (braquiópodos, briozoos, corales, etc.) y vertebrados (peces).

El contenido paleontológico permite correlacionar estas capas con aquellas que en la República de Bolivia presentan una flora y fauna similar y que son referidas al Carbónico Superior-Pérmico Inferior.

La presencia de estas capas en territorio argentino tiene un gran significado paleogeográfico, ya que permite establecer su relación con los estratos continentales que hacia el sur constituyen el Grupo Paganzo.

## **TREND SURFACE ANALYSIS OF LATE PALEOZOIC DATA THICKNESS OF THE PARNAÍBA BASIN, NORTHEASTERN BRAZIL**

G. AMARAL and A. C. ROCHA-CAMPOS

Instituto de Geociências, Universidade de São Paulo  
São Paulo, Brasil

In order to get additional information on the tecto-sedimentary history of the Parnaíba Basin during the Late Paleozoic, a trend surface analysis of the thickness data of the Late Paleozoic formations was performed.

The sequences analysed correspond to the Poti, Piauí and Pedra Fogo formations (respectively, Mississippian, Pennsylvanian and Upper Permian ages).

The cubic surface showed the best fit for the Poti Formation. The maximum sediment thickness is located in the central part of the basin, near the border between the Maranhão and Piauí states. The thickness decreases progressively towards three main high areas, probably representing basin margins. They are the Ferrer Arch towards the north, and the eastern and southwestern basement areas. A local structural high is found to the south, corresponding to wells RB-1-MA and CA-1-MA in the southern Maranhão State. The analysis of residuals suggests a basin opening towards the south.

Pattern of sedimentation changed markedly during deposition of the Piauí Formation, as disclosed by the trend surface maps. 3<sup>th</sup> degree surface showed the best fit. A north-south trending intrabasinal positive element is well marked by the definition of an extensive area of low thickness, almost entirely surrounded by areas of greater thicknesses. The basin margin seems to be well defined to the west, at the Maranhão, Goiás and Pará states boundaries.

The scarce data for the Pedra de Fogo Formation limited the interpretation to the 2<sup>nd</sup> degree surface, which showed the best fit.

The basin pattern is again different from the two lower units. The area of maximum thickness is now located at the margin of the basin. Two positive areas may be recognized to the north and south representing the basin margins.

### **TREND SURFACE ANALYSIS OF THICKNESS DATA OF THE CHACO-MESOPOTAMIAN BASIN, ARGENTINA**

G. AMARAL and A. C. ROCHA-CAMPOS

Instituto de Geociências, Universidade de São Paulo

São Paulo, Brasil

Thickness and sand/shale ratio data of the Late Paleozoic Sachayoj, Charata and Chacabuco formations of the Chaco-Mesopotamian Basin of northeastern Argentina were analysed by means of trend-surface techniques.

Due to small number of control points available, the interpretation is restricted to surfaces up to 3<sup>rd</sup> degree.

For the Sachayoj Formation the most adequate fit was obtained for the 2<sup>nd</sup> degree surface, as indicated by the percentage of total sum of squares and correlation coefficient.

Both thickness and sand/shale ratio surfaces indicate that the sediments were deposited in an elongated basin, with a general trend in the northwest-southeastern direction, limited towards northwest by the Pampean and Asunción arches. Towards the southeastern, the