Comunicaciones, N° 35 (1985): 181 - 183
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NUEVOS DATOS GEOCRONOLOGICOS ACERCA DE LA EDAD PRECAMBRICA DE LA FORMACION PUNCOVISCANA, NOROESTE ARGENTINO

NEW GEOCHRONOLOGICAL DATA ON THE PRECAMBRIAN AGE OF PUNCOVISCANA FORMATION, NORTHWESTERN ARGENTINA

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The Puncoviscana Formation (Turner, 1960) is the most conspicuous and widely extended unit of the basement of the Cordillera Oriental. Argentina. It is the host rock of many plutonic bodies, such as Cañani, Tipayoc, Fundiciones, Chañi, Santa Rosa de Tastil, Palermo, Cachi and Molinos, Salfity "et al" (1975). By far, Cañani and Santa Rosa de Tastil are the biggest ones; both underlie in strong unconformity units of the Mesón Group (Keidel, 1912; Turner, 1960).

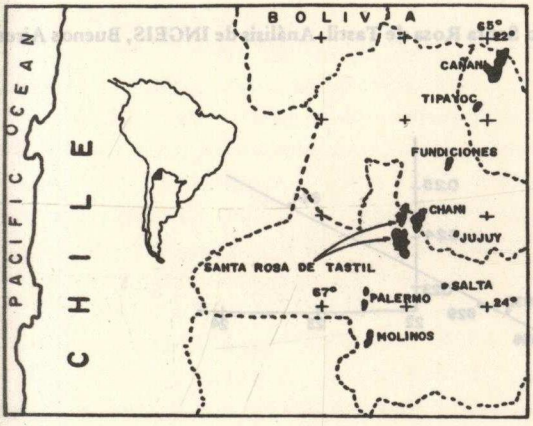

Fig.1. Map of northwestern Argentina showing the study area and location postectonic-epizonal granites.

Fig.1. Mapa del noroeste Argentino, que muestra el área de estudio y la distribución de los granitos posttectónicas epizonales.

At present, the age of the Puncoviscana Formation and Mesón Group, has been estimated as Lower Cambrian from its ichnofaunistic association, principally "Olhamia" for the first one (Aceñolaza y Toselli, 1981) and "Syringomorpha nilssoni" for the latter (Alonso y Marquillas, 1981).

It is clearly shown that this information leads to highly uncertain and even contradictory results. The obtention of the first Rb-Sr isochron from the Santa Rosa de Tastil granitic

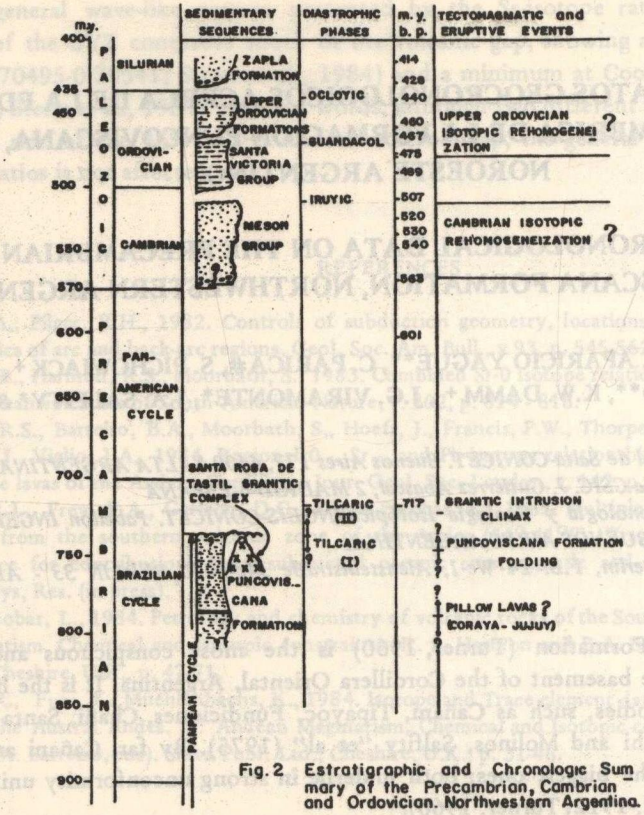

Fig. 2 Estratigraphic and Chronologic Summary of the Precambrian, Cambrian and Ordovician. Northwestern Argentina.

Fig.2. Rb-Sr Isochron diagram Santa Rosa de Tastil granitic complex Analysis from INGEIS - Buenos Aires.

Fig.2. Diagrama isocrónico Rb-Sr del complejo Santa Rosa de Tastil. Análisis de INGEIS, Buenos Aires.

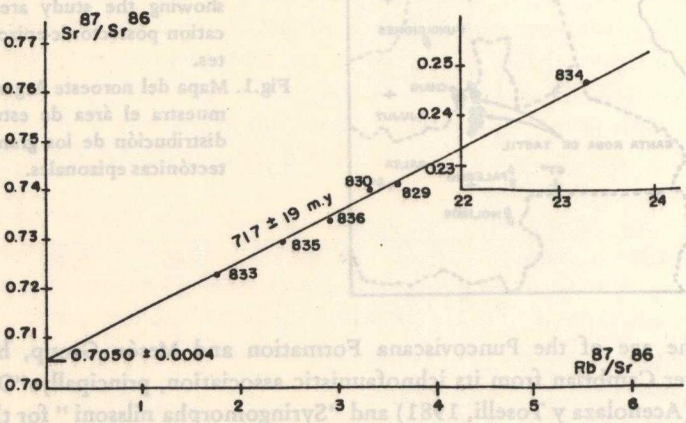

Fig.3. Estratigraphic and Chronologic Summary of the Precambrian, Cambrian and Ordovician. Northwestern Argentina.

Fig.3. Resumen Cronológico y Estratigráfico del Precámbrico, Cámbrico y Ordovícico del NW Argentino.

complex with 717 ± 19 Ma (Fig. 3), shows a Precambrian age for this complex and consecuently the host rock should be older.

This situation leads to new analysis of the palaentological content, geological evolution and palaeogeographical position of the northwestern argentinian basement.

After Almeida (1971) and Harrington (1975) this age may be included in the Brazilian cycle. Therefore, the northern Argentina basement in the future could be connected with some of the "mobile belts" that border the cratonic nucleii.

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