

## NEW U-PB AGE TO THE PEDRA PINTADA SUITE AT THE TYPE-LOCALITY, RORAIMA, GUIANA SHIELD

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**ABSTRACT:** The Pedra Pintada Suite (PPS) outcrops in the northernmost portion of the Roraima State, in the Ventuari-Tapajós Province, Guiana Shield. It comprises I-type, high-K and/or shoshonitic calc-alkaline granitoids, in comagmatic association with volcanic rocks of the Surumu Group. More recently, the felsic volcano-plutonic association was considered to be a SLIP (Orocaima), rendering some importance to the Amazonian Craton in terms of the metallogenetic and timing record, as well as in the reconstruction of the Proterozoic paleocontinents, as the Nuna mega-continent. The Orocaima SLIP also comprises plutonic and volcanic rocks with alkaline and A-type characteristics, whose association with those I-types can be seen as an important silicic province with a hundred of kilometers in length, where it forms an extensive segment to Venezuela, Guyana and Suriname. The evolution of PPS was established along Orosirian times, in the 1.98-1.96 Ga interval, remaining in discussion, whether in association with late processes related to subduction in a post-collisional context (calc-alkaline predominance) or associated with an intracontinental environment under more stable crustal tectonic conditions, post-orogenic to intraplate (coexistence of calc-alkaline and alkaline types). The PPS comprises (hornblende)-biotite granodiorites and monzogranites with subordinate quartz diorites, tonalites and syenogranites. The rocks are dominantly grayish and magnetic. Quartz dioritic enclaves with a rounded shape and small dimensions are common and sometimes include alkaline feldspar crystals, probably dropped from the surrounded rock and suggestive of the coexistence of acid and basic magmas. A Pb-Pb zircon evaporation age of  $2005 \pm 45$  Ma was previously obtained for a monzogranite from the type-locality of Pedra Pintada, although a Transamazonian heritage has been established. In this paper, a U-Pb SHRIMP zircon age of  $1969 \pm 5.1$  Ma of a granitoid from the same type-locality, was obtained by the Geochronological Research Center (CPGeo) of the University of São Paulo and records agreement with the ages found throughout the region where the volcano-plutonism of the Orocaima SLIP is known. The U-Pb Concordia ages ranging from 1982 to 1958 Ma (four spots) agree with the experimental error, indicating a probably similar age of crystallization. Zircon crystals are euhedral to subhedral, usually prismatic grains. The magmatic feature is represented by the strong oscillatory zoning and the occurrence of inherited oval to subrounded cores that truncate the internal zoning of the new grain. Some crystals are internally poorly zoned and show changes in the physicochemical conditions during their crystallization. From the archaeological point of view, the name given to this geological unit comes from an impressive isolated oval monolith called “Pedra Pintada” (Painted Stone), that contrasts with the large surrounding savanna plain. The origin of its name is related to the large number of primitive drawings or petroglyphs observed on its surface, which were related to European prehistoric cultures of the Mediterranean.

**KEYWORDS:** PEDRA PINTADA SUITE, RORAIMA, GEOCHRONOLOGY