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THE AGE OF THE SÃO FRANCISCO SUPERGROUP, BRAZIL: A REVIEW.

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For more than thirty years geochronologists have been working on the Neoproterozoic sedimentary sequence of the São Francisco Supergroup, an epicontinental sequence overlying the São Francisco craton, in order to define its depositional age precisely. This supergroup is composed of diamictites of the Jequitaí Formation, which record a glacial event, and the overlying Bambuí Group, which comprises carbonate and pelitic-psamitic rocks. The rocks were partially affected by deformation and metamorphism from the Brasiliano belts that border the basin. The importance of determining the age of this supergroup is related to the great changes in the hydrosphere and atmosphere that took place during this time and played an important role in explosion of life in the Phanerozoic. Based on isotopic data available in the literature there is evidence that the carbonates from the base of the Bambuí Group were deposited soon after a glacial event (negative d13C). However, the age of this glaciation is still disputable, and it could be Sturtian or older; it cannot be Varangian. Sr ratios from carbonates indicate that they were deposited in the 600-800 Ma interval. Pb-Pb ages on carbonates suggest 680 Ma as a minimum depositional age. A large scale fluid percolation affected most of the sequence at 520 Ma, and it could be responsible for the imprecise ages obtained on the sediments.

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