

finales del Mapa Tectónico de la Cordillera de los Andes.

Dado que los polígonos utilizados para representar las diferentes unidades tectónicas tuvieron como base el Mapa Metalogénico de América del Sur, estos debieron ser agrupados o divididos con criterios que no siempre coincidían con los del mapa previo.

Una vez correlacionados los ciclos y los ambientes orogénicos de ambas regiones, se trató de identificar la información pública disponible de las cuencas sedimentarias, para poder marcar en aquellas regiones con espesa cobertura cuaternaria los espesores de estas cuencas. Se procedió a través de líneas isópacas a delimitar esas cuencas sedimentarias del subsuelo.

La información continental se complementó con la indicación de los principales volcanes activos que permitieron ilustrar, en forma directa, las zonas amagmáticas con subducción horizontal y las zonas de subducción normales con volcanismo activo.

En el sector oceánico adyacente al continente sudamericano se procedió a indicar la edad de la corteza oceánica, las zonas de fractura principales, las dorsales oceánicas sísmicas y asísmicas, así como los *plateaux* oceánicos mayores. Las islas contaron con la geología de superficie disponible.

Como resultado final, el mapa presenta una exitosa combinación de unidades tectónicas, ciclos orogénicos y edad de las rocas, que en forma visual permiten aprehender en forma directa la gran variedad de ambientes y procesos que caracterizan la evolución tectónica de la Plataforma Sudamericana y el Orógeno Andino adyacente.

Agradecimientos: Los resultados obtenidos no se hubieran alcanzado sin la importante colaboración a lo largo de estos años de geólogos y técnicos de los distintos servicios geológicos nacionales cuyo listado figura expresamente en la versión final del mapa tectónico.

Geological evolution of the Amazonian Craton: Forget about geochronological provinces

Salomon KROONENBERG

Delft University of Technology, Netherlands, s.b.kroonenberg@tudelft.nl

Three major orogenic belts can be distinguished in the Amazonian Craton: an Archean one, a Paleoproterozoic one and a Meso- to Neoproterozoic one. The Archean is represented in the Serra dos Carajás and parts of Amapá in Brazil, and in the Imataca granulite belt in Venezuela, and will not be discussed further in this paper.

The Paleoproterozoic Trans–Amazonian belt consists of an impressive 2.2–2.1 Ga greenstone belt, stretching along the whole northern boundary of the Guiana Shield. Adjacent to the greenstone belt we find ~2.1 Ga TTG dioritic plutons and deep-seated inhomogeneous granites. Still further south, there is a belt of ~1.98 Ga granitoid–acid–volcanic rocks (Surumú in Brazil, Dalbana in Suriname). The recently defined ~2.06–1.98 Ga Cauarane–Coeroeni high-grade belt in the central part of the Guiana Shield forms a major break between the northern part of the Craton and the southern part. The Bakhuys UHT granulites in Suriname represent the deepest crustal window of this high-grade belt.

In the central part of the Amazonian Craton, south of

the Cauarane–Coeroeni Belt, there are vast expanses of granitoid and partly also acid volcanic rocks (Iricoumé). Neither of these granitic domains is easily connected to any orogenic event, either in age or in geological setting. Earlier subdivisions of the Amazonian Craton distinguished several geochronological provinces based mainly on Rb–Sr isochrones and a few U–Pb ages on the granitoid rocks. Their definition and supposed boundaries have shifted wildly, leading to great confusion among Amazonian geologists and a plethora of geodynamic reconstructions without much factual support.

Instead of geochronological provinces I see two generations of granitoid magmatism. The first one of Paleoproterozoic age is a continuum of intrusions between 1.88 and 1.75 Ga, which might be called the Amazonian Igneous Belt, stretching from 1.88 Ga plutons in the Carajás belt in the southeast, to 1.75 Ga basement rocks in eastern Colombia. At 1.75 Ga cratonization of the Amazonian Craton was completed. The second generation of granitoid magmatism, of Mesoproterozoic age, is a series of discrete plutons in the central and western part of the Craton, ranging from the 1.55 Ga rapakivi granites of Mucajai and Parguaza, to the 1.6–1.0 Ga tin granites of Rondônia.

The Grenvillian (1.1–0.9 Ga) Santa Marta–Nova Brasilândia belt is exposed mainly in Precambrian uplifts in the Andes and in the Nova Brasilândia belt in the extreme southwest of the Amazonian Craton in Brazil and Bolivia. The previous names of Sunsás–Aguapeí should be discontinued, as they refer to slightly deformed platform covers. The Grenvillian belt marks the collision with Laurentia in the north and the Paraguá craton in the southwest, and concomitant indentation tectonics have caused shearing and thermal resetting in the whole western part of the Amazonian Craton. Platform covers and mafic dykes will not be discussed here.

The present reconstruction of the Amazonian Craton intersects most of the previously defined boundaries of the geochronological provinces. In my view the concept of geochronological provinces is obsolete and should be abolished, and no longer be represented on geological maps. The concept of westward continental accretion of the Amazonian Craton suggested by the distribution of the old geochronological provinces can no longer be upheld.

I see the Paleoproterozoic Amazonian Igneous Belt as a marker of continuous acid magmatism, which resembles the coeval Trans–Scandinavian Igneous Belt in the Baltic Shield. In the SAMBA reconstruction of the Columbia Supercontinent this Amazonian Igneous Belt and the Trans–Scandinavian Igneous Belt neatly line up with each other, and seem to represent a single large-scale anorogenic igneous event between 1.88 and 1.75 Ga.

Geological development of the coastal plain of Suriname

Theo E. WONG

Anton de Kom University of Suriname, t.wong@uvs.edu

The coastal plains of Suriname, French Guiana and Guyana form the marginal part of the large Guiana Basin in which subsidence and sea level movements have greatly influenced sedimentation. In Suriname, the subsurface sediments of the