

## THE GREENSTONE BELTS OF ZIMBABWE, James F. Wilson, University of Zimbabwe

Three ages of granite-greenstone terrane can be recognised within the Zimbabwe Archaean Craton. The oldest greenstone belt remnants constitute the volcano-sedimentary Sebakwian group dated at c. 3.5 Ga minimum on the evidence from various granites and gneisses. The more extensive, main greenstone belts comprise the dominantly volcanic Bulawayan Group and dominantly sedimentary Shamvaian Group. An unconformity within the Bulawayan Group allows its subdivision into the Lower and Upper Greenstones. The Lower Greenstones possibly form part of a granite-greenstone terrane about 2.9 Ga old. The widespread Upper Greenstones and the locally developed, unconformably overlying Shamvaian Group are about 2.7 Ga old. Two suites of late granites post-date the main greenstone belts. These comprise the tonalitic Sesombi Suite at c. 2.7 Ga and the more potash-rich Chilimanzi Suite at c. 2.6 Ga. The intrusion of the Great Dyke at c. 2.5 Ga marks the end of the Archaean.

Nappe tectonics were a feature of the ancient c. 3.5 Ga terrane. A complex granitic crust was present at an early stage but whether this formed a basement to the Sebakwian rocks is not clear.

The main greenstone belts (? 2.9 Ga and c. 2.7 Ga) however were laid down on granitic crust containing the remnants of earlier greenstone belts. Correlations of the major stratigraphic units of the (c. 2.7 Ga) Upper Greenstones across the craton indicate that these are the remains of a much more continuous cover. Certain mafic dyke swarms and a suite of dominantly ultramafic sills and layered intrusions, all of which predate the 2.6 Ga granites, help delineate the pre-Upper Greenstones basement. These ultramafic sills probably represent the dregs of magma chambers which fed the volcanic cover.

The present configuration of the greenstone belts, which is largely that of Upper Greenstones, can no longer be explained in terms of multiple granite intrusion and vertical tectonics.