



United Nations  
Educational, Scientific and  
Cultural Organization

Organisation  
des Nations Unies  
pour l'éducation,  
la science et la culture

# AMENDMENT

Item of the Agenda	<i>Draft Decision: 42 COM 8B.5</i>
Amended Draft Decision	<b>42 COM 8B.5</b>
Amendment submitted by the Delegation of....	<a href="#">Angola, Burkina Faso, United Republic of Tanzania, Uganda and Zimbabwe</a>
Date	29 JUNE 2018

## TEXT

### *Draft Decision: 42 COM 8B.5*

*The World Heritage Committee,*

*1. Having examined Documents WHC/18/42.COM/8B and WHC/18/42.COM/INF.8B2,*

*2. ~~Refers-Inscribesthe nomination of Barberton Makhonjwa Mountains, South Africa, on the World Heritage List on the basis of criterion (viii) back to the State Party, taking note of the clear potential of the nominated property to meet criterion (viii), in order to allow the State Party to:~~*

*a) ~~Complete the current process of legal protection of the geosites located outside of the nationally protected areas, including an appropriate wider zone of protection around each of these geosites,~~*

*b) ~~Commence the recruitment of the necessary geological staff, including at least one position at senior level, in order to ensure the necessary qualified capacity to assure the management of the geological values of the nominated property, and the protection of all of the geosites from illegal collection,~~*

*c) ~~Expedite the implementation of the proposed Barberton Makhonjwa Mountains Integrated Management Plan as an agreed joint management framework for the~~*

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~~nominated property in anticipation of its legal adoption should the property be inscribed;~~

3. Adopts the following statement of Outstanding Universal Value:

### **Brief Synthesis**

The Barberton Makhonjwa Mountains contain the best-preserved, oldest and most diverse sequence of volcanic and sedimentary rocks on Earth. These well researched outcrops provide a globally unique source of information about the earliest measurable conditions of the Earth's gradually solidifying oceanic crust, from 3.5 billion years ago. From these rocks, more has been learned than from anywhere else about the surface processes at work as the Earth cooled from a molten body, to the creation of the primitive biosphere. This is a field repository for the genesis of life.

Protected from beneath by rising plutons of granite, and later buried by a thick layer of Transvaal sediments, this 340 million year sequence of Archaean lavas and sediments has escaped both subduction and erosion for all of that time. The geosites provide earliest evidence of the chemical nature of our oceans and atmosphere and of the way continents are formed – all unique attributes of our planet. The outstanding universal value lies in both the remarkable state of preservation of the geosites and their variety grouped together. That they occur in attractive surroundings with a comfortable climate, easy to access by researchers and the visiting public, extends their remarkable geological heritage value. Combined, the geosites form a growing outdoor education facility at all levels and for many aspects of our present and past environments. There are literally hundreds of geosites of interest which, when their information is combined, allow the Barberton Makhonjwa Mountains to tell a richly consistent and as yet only partly explored story of how life on Earth began.

**Criterion(viii):** The Property contains the best, most diverse and outstanding examples of rock outcrops from the Archaean stage of Earth's history. Its rocks have revealed the earliest record of single-celled life forms as well as the earliest and most significant geomorphic features, including detailed evidence of the processes involved in the evolution of the originally oxygen-free oceans and atmosphere, and creation of the first continental landforms.

The property is a truly unique remnant of the ancient Earth's crust, containing among the oldest, and undoubtedly the best-preserved sequence of volcanic and sedimentary rocks on Earth. These highly accessible ancient exposures present a continuous 340 million year sequence of rocks, starting 3 600 million years ago. Their

physical and chemical characteristics provide an unparalleled source of scientific information about the early Earth. The outstanding value of these rocks lies in the large number of sites and features that, when combined, provide a unique, and as yet only partially explored, scientific resource.

### **Integrity**

The entire 113 137 ha property lies within the BGB and covers some 40% of that geological formation. The Property's boundary encloses a fully representative sample of 154 registered rock outcrops (n= 300, i.e. 51% of geosites). The distribution of all geosites and the information they convey define a landscape of the highest scientific value in terms of Earth's earliest discernable history. The variety of geological processes, evident both as chemical signatures and as more visible physical structures within the rocks are also unmatched in any comparable area

Of the many outstanding geological features of the BGB, the following have contributed most prominently to scientific knowledge and understanding of the evolution of the early earth: Evidence of the Earth's earliest life forms, including microfossils, stromatolites, biomats and other biologically derived material; Evidence of the earliest continent-forming processes showing how land masses emerged from the hot and murky Archaean oceans that dominated the planet's surface, with only scattered volcanic peaks aligned as island arcs in an otherwise endless sea; Evidence of the earliest large meteorite impact events occurring as spherule beds of molten rock droplets from a period of intense meteorite bombardment; Chemical and physical evidence of the nature of the Archaean atmosphere and oceans, the oxygen-free chemical soup that supported abundant single-celled life and created vast ocean-floor deposits of chemical sediments such as banded iron formations and coastal sand deposits showing tidal intervals and the earliest moon-Earth interactions; The 'type-locality' of the distinctive komatiite volcanic rocks, and pillow lavas, the komatiites being the hottest lavas by far to have ever emerged on the Earth's surface; Volcanic lapilli embedded in chert, appearing as pea-sized 'hailstones' of accreted volcanic ash and vaporised rock, that have settled into chert sediments on the Archaean sea floor.

These extensive deposits signify the presence of airborne volcanism as comprised to the more common under water lava flows occurring at this time.

Oldest migmatites at the Greenstone Belt margins, abundant exposures occur in the contact zones between the dark basaltic Archaean lavas and the plutons of lighter silica-rich granite rising beneath them. Spectacular patterns show evidence of

melting and recrystallization due to intense pressures and extreme temperatures generated around the contact area (see cover photo).

Most Archaean lavas and sediments elsewhere in the world have been reheated or otherwise deformed (metamorphosed) in the slow but incessant movements of the Earth's outer shell. Such altered rocks no longer relate closely to the conditions at their site of origin at the Earth's surface. They therefore have substantially less value as sources of evolutionary information.

### **Protection and Management Requirements**

The applicable legislative Acts include the World Heritage Convention Act, 1999 (Act No. 49 of 1999), the National Heritage Resources Act, 1999 (Act No. 25 of 1999), National Environmental Management Protected Areas Act, 2003 (Act No. 57 of 2003), Mpumalanga Tourism and Parks Agency Act, 2005 (No. 5 of 2005), Mpumalanga Nature Conservation Act, 1998 (No. 10 of 1998) and related regulations. The Integrated Management Plan provides a sound framework for management, protection and decision making. The South African World Heritage Convention Committee (SAWHCC) oversees the implementation of the Convention.

3.4. Requests ~~Recommends that~~ the State Party give consideration to the following:

- a) Ensure that all the proposed additional financial commitments to the nominated property are expedited, and that ongoing additional resources are provided to assure adequate staffing, including specific geological expertise, in the management bodies for the proposed property,
- b) Maintain and enhance vigilance regarding threats to the proposed property, and ensure that the nominated property as a whole, and all of the individual geosites, are effectively protected, conserved and presented,
- c) Evaluate the opportunities to further strengthen the buffer zone arrangements for the nominated property, and to give consideration to the specific creation of a World Heritage buffer zone, in collaboration with the relevant stakeholders;
- d) Expedite the implementation of the proposed Integrated Management Plan as an agreed joint management framework for the property

54. Invites the States Parties of South Africa and Swaziland to continue their collaboration regarding protection, management and research on the key geosites in the greenstone belt that extends into Swaziland, and to evaluate further the possibility to include additional sites in Swaziland in a transboundary extension of the nominated property, should further research indicate this potential;

*65. Commends the State Party, and the local stakeholders, for the participative process that has led to the creation of this nomination, and also requests the State Party to ensure that this strong community collaboration remains at the heart of management of the nominated property in the future.*