

Land-use issues and geopark development

The process of developing a Pre-Aspiring UNESCO Global Geopark involves an 'on-ground' assessment of the feasibility of any proposal brought forward by any group, including government agencies. With compelling regional development imperatives in mind, two such proposals – the Etheridge region of far north Queensland (~40 000 square kilometres) and the Warrumbungle region in northwest NSW (~27 000 square kilometres) have been subject to intensive assessment during 2017.

UNESCO Global Geoparks are 'single, unified geographical areas where sites and landscapes of international geological significance are managed with a holistic concept of protection, education and sustainable development. A UNESCO Global Geopark uses its geological heritage, in connection with all other aspects of the area's natural and cultural heritage, to enhance awareness and understanding of key issues facing society, such as using our Earth's resources sustainably, mitigating the effects of climate change and reducing natural disasters-related risks' (www.unesco.org).

By raising awareness of the importance of the area's geological heritage in history and society today, UNESCO Global Geoparks provides local people with a sense of pride in their region and strengthens their identification with the area. The creation of innovative local enterprises, new jobs and high quality training courses is stimulated as new sources of revenue are generated through geotourism, while the geological resources of the area are protected.

Of importance in the process is the realisation that 'while a UNESCO Global Geopark must demonstrate geological heritage of international significance, the purpose of a UNESCO Global Geopark is to explore, develop and celebrate the links between that geological heritage and all other aspects of the area's natural, cultural and intangible heritages'. In this context, the first task of the proponent is to address the issue of geological heritage of 'international significance'. Recently, the Governing Council of the GSA has assigned the Geotourism Standing Committee the role of assessing the international geological merit of current (and any future) Pre-Aspiring UNESCO Global Geopark proposals, based on the advice provided by the appointed geoscience/mining heritage reference groups, provided that any assessments are to be endorsed by the Governing Council before they are made external.

For the Etheridge proposal, a highly knowledgeable reference group chaired by Ian Withnall has undertaken a considerable amount of work in defining the international significance of this region located west of the Atherton Tablelands, identifying key geosites in addition to the existing tourism attractions of Undara and Cobbold Gorge and the Tallaroo Hot Springs area managed by the Ewamian Aboriginal Corporation. In addition, the reference group has developed a sophisticated GIS map of the region with smartphone connectivity (with the valued technical support of Ken Moule), as well as excellent geological content generated by John Nethery for the proposed Savannahlander Rail geotrail. Jan Wegner, a heritage specialist, has also generated a fascinating overview of the mining heritage of the region.



Tallaroo Hot Springs terraces, a key Etheridge region geosite, managed by the Ewamian Aboriginal Corporation. Image courtesy David Hudson

As Reference Group Chair, Ian Withnall's geological synopsis says it all: "The Etheridge region's geological history extends back 1 700 million years when its oldest rocks were possibly deposited on the edge of a continent now forming the core of North America. They amalgamated with the Australian continent about 1 600 million years ago during supercontinent assembly, and were deformed and metamorphosed. After continental breakup, quiescence was punctuated by episodes of intense geological activity. The most violent resulted in vast outpourings of silica-rich magma in the Carboniferous–Permian. Fluvial and marine sediments blanketed the region in the Jurassic–Cretaceous, but the older rocks were re-exhumed after Cenozoic uplift. Basaltic volcanism has occurred without major breaks for the last 9 million years, and features lava tubes and very long lava flows. The region is potentially still volcanically active. These events have contributed to a fascinating diversity of geology, mineral resources and landscapes, which influenced the lives and customs of Aboriginal people and patterns of European settlement."

So far, the geological assessment has been the easy part of the process. Fundamental to approval by governments and UNESCO itself, community support and ownership of the project is critical. Unfortunately, the project has not been supported by the grazing communities, because of fears that the UNESCO branding will generate a response by the state government to impose an additional layer of environmental protection – even though 'UNESCO Global Geopark status does not imply restrictions on any economic activity inside a UNESCO Global Geopark where that activity complies with indigenous, local, regional and/or national legislation'. These fears are also shared by some elements of the mining industry involved in small-scale mining operations.



Pilliga Nature Reserve Sandstone Caves, an Aboriginal site for the Gamilaraay people of the Warrumbungle region, developed within the Jurassic Pilliga Sandstone Formation. Image courtesy Angus M Robinson

In response to a well-orchestrated campaign by the graziers to stop the project, the proponent — Etheridge Shire Council — has decided not to proceed with a UNESCO application at this stage. Instead, the council plans to establish a stakeholder Geotourism Advisory Committee to advance geotourism using the natural and cultural assets that have so far been identified. Etheridge Council (and Regional Development Australia Far North Queensland and Torres Strait Inc., for that matter) are committed to developing tourism along with agriculture and mining as the three-fold basis of their regional development plans.

In New South Wales, the Warrumbungle project embraces three local government areas, at the core of which is the Warrumbungle National Park. The park is already included on Australia's National Heritage List, a fact which in itself would seemingly pre-qualify the area as being of international geological significance. The remainder of the shires include pastoral areas, as well as native bushland, such as parts of the Pilliga Forest. In this instance, however, there is concern within the state government that the establishment of any

designation with some form of nominal 'park' status would result in land-use conflicts with interests that are anti-development in nature. It is quite evident that this issue will take some time to resolve, even though there is strong support emerging from Destination NSW that the creation of a UNESCO Global Geopark will substantially enhance tourism in the region.

These issues are challenging and need to be addressed for the long term as interest in geotourism grows nationally, with geopark aspirations now emerging in other regions. It is expected that these issues will provide some focus for geotourism workshops at two conferences (SEGRA 2017 and Global Eco 2017) scheduled later this year, as well as the Australian Geoscience Council Convention in October 2018, all to be held in South Australia. Meanwhile, in May this year, UNESCO approved eight new global geoparks in Asia, Europe and Latin America; the world network now numbers 127 UNESCO Global Geoparks in 35 countries. With a global target of 500 in mind for the program, it can be legitimately asked whether Australia is ready to join into this initiative. Regional development imperatives may yet be the final determinant, but it would seem that the process of community engagement and resolution with the interests of 'other land users' will always remain a key factor if geopark development is to become a permanent feature of the Australian landscape.

The advisory work of the Geotourism Standing Committee continues and is expanding. Details of the 2016/2017 report can be found at: <http://bit.ly/2irGlem>.

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THE BICENTENNIAL GOLD 88 ENDOWMENT

The Trustees of The Australasian Institute of Mining and Metallurgy Education Endowment Fund are pleased to announce that the 29th round of financial awards from The Bicentennial Gold 88 Endowment will be made in 2018 for the advancement of education and research in Earth Sciences for the benefit of Economic Geology in Australia.



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- Technical site visits
- Travel to conferences to deliver papers on aspects of Economic Geology in Australia
- Environmental Geoscience as applied to the Exploration/ Mining Industry.

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The Fund strongly encourages applicants to submit a letter of support from their University and/or supervisor in addition to their proposal.

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