

Geological Sites and the Concept of World Heritage's 'Outstanding Universal Value': Weighing the Worth and Relevance of Geological Heritage

J. H. Calder

Everything that we know of the Earth indicates that it is indeed a special place within the area of the universe known to humankind. Aside from recognizing the entire planet, how do we weigh the disparate stories recorded in every small corner to reflect an inventory of Earth history and processes? Each narrow discipline of geoscience will have its favoured list of valued sites, and political boundaries play a role in the making of lists. Switzerland alone, comprising less than 0.03% of the Earth's continental landmass, has recognized 400 sites of national significance and 9 potential GeoParks. UNESCO GeoParks and IUGS Geosites are examples of international efforts at achieving a balanced inventory of geological heritage. At the end of the spectrum of designations lies the list of World Heritage administered by UNESCO. A fundamental challenge is to convey the relevance of Earth history and processes to an audience (including evaluators) more open to understanding cultural relevance. This challenge is perhaps nowhere more obvious than on the World Heritage list itself: of the 812 inscribed sites, only 160 reflect natural heritage. Consider that the number of 'cathedrals' (61) alone inscribed as World Heritage sites exceeds all sites inscribed on the strength of geological heritage combined. Although correcting imbalance in the list is a goal of UNESCO's Global Strategy, geological sites whose story lies fundamentally in the record of life (paleontology) face still greater scrutiny even though fewer than 10 are inscribed primarily on the basis of their fossil record. A problematic aspect of the present World Heritage approach with respect to fossil sites is the position that one representative site speak for the entire Earth for a given period, whereas designation of one representative site for each biome for a given period offers a more meaningful approach that acknowledges the inherent diversity of the Earth. These issues aside, the standard required to prove relevance to humankind of 'outstanding universal value' remains a worthy goal that forces us outside the comfort zone of our own discipline. In this context, the process of considering the place and worth of the classic 'Coal Age' site of Joggins, Nova Scotia, currently on Canada's Tentative List, and the challenges in conveying this story of relevance to non-geologists may prove instructive to other sites in weighing the worth of their geological heritage.

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²Nova Scotia Department of Natural Resources, PO Box 698, Halifax, NS B3J 2T9