

NEW SERIES

Classic Rock Tours – An Introduction

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Like most who opted for geoscience as a vocation rather than a mere job, I am often asked exactly *why* I chose this particular career path, and continue to be involved in my retirement. There are also times when I ask myself the very same question, but it usually boils down to this – being a geologist provides opportunities to visit inspiring, unique and often remote locations through field work and other field trips. In Scotland a couple of years ago, on a conference trip that led to the following article, I read Stephen Baxter's excellent book *Revolutions in the Earth*. I thoroughly recommend it – as a biography of James Hutton it gives some insight into his personality – and it illustrates the love-hate relationship that geologists have with field work. In a letter written to a friend, Hutton complained “*Lord pity the arse that's clagged to a head that will hunt stones*”. I could amplify this with a detailed footnote explaining the meaning of the archaic dialect verb *to clag*, but I don't need to because all geologists will understand Hutton's sentiment. We don't really have a choice in this – our interest in exploring the natural world is just part of who we are. Such a conclusion may not be fully scientific, but there's no denying its truth.

Even in a technological age where some geoscience careers are built around black boxes and vast computer models, geology remains at its core an *observational* science, and the theories that we build are ultimately subject to the ground truth of field observations. It was the lure of field work, the outdoors and travel that brought me into geology, and I know that the same is true for many of my colleagues. Modern geoscience may be sophisticated, multidisciplinary and quantitative, but it always links back to careful field observations and their thoughtful interpretation. Even if technology gives us details and constraints, the essential plotline of the story of Earth comes from reading the rocks.

Geoscientists are generally keen and adaptable travellers, who like to get off the beaten tourist paths, sometimes at their own peril. One of the great things about being a student of the Earth is that it surrounds us, and there will always be something interesting to find out, wherever we roam. We enjoy a special relationship with the Earth because we understand its

dynamic nature and can visualize it in four dimensions. Travelling geologists are always glancing surreptitiously at roadside outcrops as they flash by, or asking exactly why that range of hills is where it is and shaped just so. This can at times be a source of great frustration to our families or our travelling companions, but it is a natural expression of our curiosity about all things that connect to earthly processes. The one thing that I fear most in aging is to lose such curiosity, as happened to my father.

Our idea for a new series in *Geoscience Canada* that can provide helpful travel information and thoughtful geological context for influential or exceptional field areas is an attempt to both exploit and celebrate our innate curiosity. We envisage a series of articles that will provide readers not only with historical and scientific context for areas of remarkable geology, but also the essential practical information for self-directed excursions. In many cases, there is more than enough technical geoscientific data available for these places, but it is scattered within specialist publications, most of which require other knowledge to fully comprehend. To bring such sources together and communicate them more widely is by itself a service to our science. Areas of great scientific interest are commonly also featured in field trip guides, often from conferences, but these documents can be difficult to locate and access. Even if such sources can be tracked down, they will often emphasize the specialized technical aspects of sites over their wider context, and may lack the practical considerations of where they are and exactly how one might get there. Our vision for articles in *Classic Rock Tours* is to bring this information together in one place, such that geological context, site descriptions and practical advice are integrated with good maps, clear graphics, and interesting photographs. We do not see this series primarily as a venue for original research, but rather for synthesis and presentation of material from varied sources. It is true that a determined and time-consuming search of literature can eventually provide much of the information that a keen travelling geologist needs, but we seek here to place it all conveniently in one easily accessible source.

We envisage papers in this series to sit at an intermediate technical level, so that they will inform and interest a wide cross-section of the *Geoscience Canada* readership. We also envisage a diverse target audience, not restricted to professional geoscientists engaged in conference or vacation travel. Many areas around the world provide type examples and/or influential sites that have influenced wider geological thought, so these articles can have considerable educational value, even if

students are unable to visit in person. However, we hope that carefully constructed articles of this type will also provide a valuable resource for planning student excursions and ultimately contribute to the retention of vital field skills by a new generation. We anticipate an emphasis on destinations within Canada and parts of the United States, as these are easiest to visit and many are documented through familiar materials developed for conferences. The annual GAC–MAC conferences held across Canada provide a rich legacy of field trip guides, many of which are important scientific documents in their own right, as they contain data and observations not published elsewhere. Despite this importance, many of these guides are now difficult to consult or even to locate, which is a great loss to our community. Drawing upon this rich heritage for articles in *Classic Rock Tours* may in the end provide a way for these efforts to gain a wider audience and greater longevity.

I have learned as an editor that it is unwise to set too many preconditions, and that even if what we get diverges widely from what we expect, this can sometimes benefit all. For this reason, we are reluctant to impose too many advance specifications for articles, but a few general thoughts follow. First, it is very important that such articles feature places for which there is a reasonable prospect of independent travel. There are many fantastic sites in extremely remote places, and I have been lucky enough to see some, but these are probably not ideal subjects. If it requires a helicopter charter, an all-terrain vehicle, or a mule rental, it is probably not a candidate for a *Classic Rock Tour*. We anticipate a natural focus on North American examples, for logistical reasons, but are keen also to see some International flavour within these same constraints of easy and safe access. For example, the British Isles feature many superb field excursions in areas that have influenced the very course of geology, which are generally easy to complete and experience and in some cases protected for their importance. No doubt the same is true for many other parts of the world, and perhaps our efforts can encourage such protection efforts. In short, we welcome contributions from all parts of the world that might reasonably represent destinations for travelling geologists.

I have participated in many field trips over the years and some proved more rewarding than others. I am sure that I am not the only one who has been driven for miles over abominable roads to visit a small scruffy outcrop of nondescript sandstone or (worse) badly altered metavolcanic rock only to be regaled with a detailed discussion of its detrital zircon population, trace element patterns, isotopic signature, or some other feature that has absolutely no visual expression. Such things may indeed be important, but we are very much interested in the *visual* – the observational facts and the linked interpretations.

In addition to clear writing, we want such articles to contain well-constructed maps and graphics, ideally adapted and simplified for their purposes, and to also feature abundant photographic material. One of the great advantages of being an online journal is that the constraints for colour illustrations and for the overall length of articles are greatly diminished.

There is no reason why a *Classic Rock Tours* article could not explore a multi-day excursion. Finally, we must emphasize that such articles will need to contain clear information for finding, accessing and understanding sites, and that aspects of safety and respect for the property owners and other users must be considered and included. Even if *Geoscience Canada* does not assume any legal responsibility for the safety of those who use our published information, we need to ensure that guidelines are accurate and that potential users are fully aware of any specific hazards, concerns or restrictions.

With these general thoughts in mind, we invite our readers to consider possible future contributions to this series, and to contact the editor about their ideas. The first article in this series follows, completed with the assistance of guest editor Brendan Murphy, and we are very happy to have finally made a start on this idea. As is often the case, it proved necessary to start the ball rolling, but this proved to be one of the most enjoyable writing tasks of recent times. The choice for a starting point was in retrospect obvious, because James Hutton's unconformity at Siccar Point in eastern Scotland was the destination for the most famous field trip in the history of geology. It is a deserving place of pilgrimage for geologists and all others who love the mysteries of the Earth, but it is certainly not the only one. We invite you to share your knowledge of these special places, to help readers of *Geoscience Canada* expand their horizons in future travels, and also to help a new generation of geologists understand the critical importance of field observations in our science. There is no shortage of wonderful places to consider; to fill out the blank space in the pages of this introduction, one obvious possibility is provided via a less-than-subtle visual hint. This introduction is too long already, and I need to get back to scheming to find a way to get to the IAGOD conference in northern Argentina this August – I hear that there is some amazing geology down there.



The Grand Canyon of the Colorado River is justly famous as a place of pilgrimage for geologists. It is one of many candidates for articles in this series, should anyone in Arizona be reading this introduction. Photo from the North Rim of the Canyon in 2006, by Andrew Kerr.