

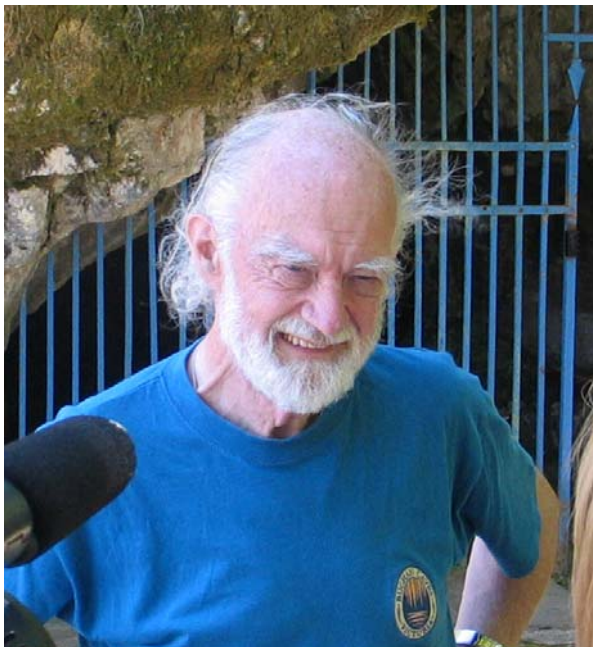
GEOTOURISM: TOO IMPORTANT TO BE LEFT IN THE HANDS OF GEOLOGISTS!

– Professor Elery Hamilton-Smith*

Geo-Tourism is located uncomfortably between the commercialism of the tourist industry and the idealism of educating members of the public. Further, there is the ambiguity between the explication of very complex (and often not readily visible) phenomena on one hand and the dumbing-down and common amusement value for practical reasons.

But most important of all, there is the tension between disciplinary specialization and the holism which is fundamental to a fully developed understanding of natural phenomena.

A systems-based and holistic perspective will not just look at the geological phenomena of a site, but rather show how the earth itself as expressed in geology is one of the most basic of all dimensions of our natural environment.



Elery Hamilton-Smith talking to the media

Introduction

Geology and landscape have together been one of the great arenas of tourism for many centuries and, for instance, was a dominant theme in the writings of Herodotus (500 B.C.) , who has often been identified as the first travel writer (Casson 1974). The fact that the term geotourism has now evolved does not necessarily mean that we offer any new improvement in the nature of the tourism experience, but it is almost inevitable that whatever we offer comes at a higher price!

Certainly, many of us are enthusiastic about what we can offer, and in particular give special attention to the opportunities for geological education and appreciation in our presentation of the natural phenomena involved. I often wonder if we fully realize the immense challenge and dilemma which we face in making the simple

claim of education through tourism. Geological phenomena are indeed very complex and some of the most important are often not readily visible.

This paper will identify and discuss some of the very real problems, analyzing how we might respond to the challenge more effectively.

Complexity and its presentation

There is a spectrum of potential responses to complexity.

Probably at the lowest level, it is accepted as given that tourists want to fit a lot of experience into a short time, so there is not the time for proper identification and explanation. So, complexity is all too often dumbed-down, and the tourist experience often consists of identifying and focusing upon small but photogenic features.

Of course there are some sites where complex events are clearly shown in a sequence of very visible features. The finest example of my experience is the tectonic mélange at Kebumen in Indonesia where an immense disorder is readily visible and often its causal origins are relatively clear to see.

The development of the site with its hostel, museum, theatre and minimal but very effective on-site signage enables visitors to access excellent learning within whatever time they have. Anything from an hour to a week might be used in a very enjoyable and satisfying way.

However, useful experience for the tourist visitor often demands quality presentation within which we can not only explain the story, but also explain how geologists come to piece the story together. In turn, we might distinguish between very soundly based evidence and varying degrees of uncertainty or even dispute.

In fact, if we are to properly interpret the nature of scientific inquiry, we need to identify the right questions first and how they first came to be asked. Winchester's (2001) book, *The Map that Changed the World*, provides a nice approach to this as some of his other books do in respect to other specific geological phenomena.

Perhaps the least amenable expression of complexity is demonstrated by Mark Barley's recent discovery in the Pilbara (Kump & Barley 2007). This has enabled us to know for the first time a relatively precise date for the most significant turning point in the world's geochemical evolution when life as we know it first became possible. This is probably one of the most important pieces of the jigsaw puzzle which is progressively explaining the story of our World. But one can only wonder how we might convey anything of the real excitement and magic of such a discovery through tourism.

The Need for Holism

Turning to the theme expressed in the title of this paper, I will now discuss how people best come to understand our world and its implications for geo-tourism.

The complex nature of the natural and cultural world means that real understanding must be based in a holistic perspective. To confine our experience and learning within any the boundaries of any one discipline seriously fragments and constrains our learning. Of course, the other major fragmentation and destruction of understanding is brought about by the cultural and political boundaries which we impose upon our own reality.



Elery Hamilton-Smith, second from the right, somewhere in Asia...

Even worse, if we focus our attention within any one discipline, and in this case geology, we will inevitably degrade the total contribution and value of geology. To fully recognise the fundamental importance and contribution made by the very basic discipline of geology, we need to place geological understandings in the context and connectivity of the holistic perspective.

I fully appreciate and would argue strongly for educational and professional strategies which will continuously lead to specialised understanding and creativity in geology.

But that does not necessarily lead to and in fact must not be allowed to obstruct the linkages to other fields of study and the resultant overall understanding.

Just as one simple example, contemporary geology has built upon a foundation of biodiversity and climatology. Plimer (1997) highlights the immense role of anaerobic microbiota in both shaping world geology and creating a life-supporting environment. He even argues that they are the pre-eminent evolutionary success story (p.5).

Interestingly, he predicted Barley's discovery which has now served to absolutely confirm the somewhat speculative suggestions of his day. Further research has only served to elaborate our understanding of the role of microbiota, and is continuing that process at an accelerated rate

[e.g., Gounot (1994), Banfield & Nealson (1997), Northup and Lavoie (2001), Palmer (2007)]

At a different level of relationship, when Blackburn et al (1965) carried out a thorough investigation of soil development in the Limestone Coast region of South Australia, they found that the geographic pattern of their findings had been predicted by Julian Tenison Woods (1862: 29-40) from his inquiring overview of vegetation patterns.

Thus, it is not difficult to find sites where all of these relationships and their impacts are readily visible and hence easy to demonstrate to the tourist public.

As a quite dramatic example from the limestone coast one can use lookout sites where it is possible to see the remarkably successful pine forests side-by-side with equally successful vineyards.

Both are totally dependent upon the very different soils upon which they grow. One early pine plantation was located on the terra rossa which is so fundamental to the growth of grapevines – but the pines grew only to less than 2 metres in height after some 60 years! Conversely, if grapes were planted on the ridges where the pines prosper, they would have not even survived.

By co-incidence, the most comprehensive study of the wine industry (over a period of 2,000 years) is entitled *Terroir: The Role of Geology, Climate and Culture in the Making of French Wines* (Wilson 1998). This is an historical, natural and cultural ecology of the industry but demonstrates without any doubt the two most fundamental requirements for successful wine growing are contained in the relationship between geology and climate.

In brief, to fully appreciate the holistic perspective, we must not only co-operatively draw upon geology, biology and climatology but virtually all disciplines and other bases of knowledge.



Elery Hamilton-Smith, with Andy Spate, in Korea

And what of Geoparks?

While I was writing this paper, many of us received news of the long-awaited recognition by UNESCO of the Kanawinka Geopark. The hard-working group responsible thoroughly deserves our recognition and congratulations.

At the same time, let me express some concern about the ways in which the Geopark concept has been developed. There is a world trend to focus upon small areas which are photogenic and lend themselves to dumbed-down mass tourism.

However, this does not preclude any Geopark from using its limited size as a base from which the holistic perspective with its gift of context and connectivity can be properly developed.

Rather than simply thinking of its very young volcanism in isolation, people should be aware that Kanawinka Geopark is just one extremity of the world's only volcanic province to have exhibited intermittent but continuing volcanic activity from the Cambrian to the present.

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Even more, the epicenter of the province appears to have progressively migrated from East to West. My volcanological colleagues in Italy are wildly envious of our luck in having such a remarkable and unique site, while very few Australians have even been aware of it!

The cenote lake fields of Kanawinka are almost equally remarkable. If we define the term cenote in its original context, which originated on the Yucatan Coast of Mexico, then we have one of the only three such fields in the world.

Finally, perhaps one of the most graphic demonstrations of the significance of geological input to our understanding is the contrast between vineyards and pine forests already discussed.

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