

## *Commentary: practices, problems and principles for ecotourism – a case study*

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### **Abstract**

Though most information presented in tourist signage is sound, some is not only severely flawed, but also unethical in that false claims are made, language is ambiguous, interpretations are irrational and explanations are confused and even internally contradictory. One site which illustrates these weaknesses is considered in some detail, as are efforts to have the signage corrected. It is argued that the touring public should expect to be presented with the best available information; that most scientific concepts can be explained accurately and simply; that the normal protocols concerning false advertising, and full and fair acknowledgement of sources, apply to signage and tourist-related literature; and that clear, concise language is not only desirable but essential, given the possibly diverse cultural backgrounds of visitors. The most effective way of ensuring the best possible result is for all concerned with signage being involved at all stages of the production from initiation to final printing.

*Keywords:* ecotourism, edutourism, communication, language, acknowledgement, Eyre Peninsula

### **Introduction**

Tourists often represent a cross-section of the community. Some are content to look, take a photograph, and proceed on. Others, however, and in increasing numbers, seek explanation and understanding. Ecotourism sites, therefore, have both educational as well as entertainment aspects. This is tacitly admitted by the ever-growing number of signs at tourism and recreation sites and venues. As MacCannell (1976: 110) pointed out, a sign is often the first contact a sightseer has with a given attraction. The sign helps to answer questions of when, why and how.

Thus, whatever the motivation of the visitor, the nature of the site and the

intention of the signage, there is surely a moral responsibility to offer information that is as correct as possible at the time. Eventually new data or new concepts may compel revisions but, until that time, it is contingent on those responsible to use the best available material and to present it clearly and unambiguously.

In Australia, some tourist information is of a high quality. The information concerning the names and provenance of plants given in the various botanic gardens, or of animals provided in zoos, is accurate. So are data given at some geological sites. In the authors' experience, however, attitudes to natural history vary. Biological aspects usually attract sound information, as do karst sites. However, and with notable exceptions, attitudes to geology and landforms can be cavalier. In all too many instances, information presented verbally or in signage is in error both factually and as regards context and interpretation. Sins of omission – lost opportunities – are also commonplace.

In some higher levels of administration it appears to be the accepted wisdom that science cannot be explained in terms comprehensible to the lay person, and that tourist information is 'only' for the general public, implying that accuracy and clarity are not important. In the authors' experience, some administrators and tour operators not only have a relaxed and sanguine attitude to false claims, inaccurate data and misleading language, but actively and vigorously oppose its being corrected. Such flawed materials and attitudes raise several major issues which administrators, the politicians who fund them and the general public – who in addition to being the recipients of such information also pay for it – might do well to consider.

The arguments are illustrated by reference to specific examples, mostly from one particular region – northwestern Eyre Peninsula. It is not, however, implied that this area is alone in displaying flawed signage and other information – it merely exemplifies a widespread problem.

### Northwestern Eyre Peninsula

Northwestern Eyre Peninsula is underlain mainly by granitic rocks of Mesoproterozoic age. The area is occupied by a broadly rolling plain from which rise several isolated hills, or inselbergs, most of them granitic. These granitic hills include morphologically spectacular and scientifically significant residuals in Mt Wudinna (also known as Wudinna Hill), Yarwondutta and Pildappa rocks and Ucontitchie Hill. These have been studied for more than 40 years and their morphology is well understood; though some aspects remain enigmatic or controversial. These Eyre Peninsula inselbergs and associated forms feature in many papers, booklets and texts published locally, nationally and internationally (e.g. Fairbridge 1968: 557–8; Bloom 1978: 326; Vidal Romani & Twidale: 1998).

Notwithstanding, when the local government body endeavoured to

attract tourists to the area, they failed to take advantage of the available geological data and the resultant signage both in the town and at the entrance to a major geological trail is unsound. This misinformation can be considered under several headings. This case study will consider the signage posted in Wudinna township concerning the granite attractions in the district as a whole (the authorship of which is not known), and that displayed on the 'Mount Wudinna (Geological) Trail' or at the base of the hill, concerning that particular feature. Brief explanation of the forms discussed is provided so that the flaws in the signage can be appreciated better. The commentary concludes with an account of official responses to representations and identifies some general principles that emerge from these experiences.

#### **Factually incorrect statements**

- (1) It is claimed both in the town signage and at the base of the hill that Mt Wudinna is, to quote the town advertisement, 'the second largest monolith (after Ayers Rock) in Australia'. The essence of the claim is repeated and expanded at Pildappa Rock, another granite inselberg located north of Minnipa and 45 km to the northwest: '... Mount Wudinna (Australia's second largest rock) ...'. In fact, three larger residuals are visible from the crest of Mt Wudinna: Carappee Hill and Caralue Bluff to the east-southeast and southeast, respectively, and Mt Sturt and the adjacent peak to the northwest are 'larger' – however, that is defined. Larger granitic monoliths occur in other parts of Australia, as well, including Peak Charles, north of Esperance, and King Rocks, in the Hyden district, both in the Yilgarn Craton of Western Australia. When other rock types such as sandstone are considered, Mt Augustus, in the Gascoyne region of Western Australia, is considerably larger than Ayers Rock.

Size is not everything, and nothing can detract from the splendour of *Uluru*, or Ayers Rock. However, the Wudinna signage is clearly false advertising. It has found its way into the scientific literature (Bierman & Turner 1995) and, indeed, many of the errors noted in this review, including the false claim concerning Mt Wudinna and Ayers Rock, are perpetuated on the Internet.

- (2) It is stated on the Trail signage that 'All granite hills display flared lower slopes'. In fact, though concave slopes are well and widely developed on granite hills and boulders in southern Australia, there are many slopes and hills which are not flared, both in Australia and overseas, e.g. in the Yosemite Valley of California and in Stone Mountain, Georgia.
- (3) On the town signage a fine sketch of a pronounced flared slope is presented. It is said to be from Pildappa Rock. It is, in fact, from

Ucontitchie Hill, some 50 km to the south (see, e.g. Twidale 1962; 1976: 11; 1982: 249).

### Misleading or confusing statements

- (1) Mt Wudinna has been exposed by the episodic lowering of the surrounding plains (Twidale & Bourne 1975). The crest is oldest and pauses in exposure are evidenced by flared slopes, and breaks of slope. In the town signage it is stated that the crest of the hill may be as much as 70 million years old and a midslope tafoni is also said to be 70 million years old, even though, given the episodic exposure, the residual of the lower slope must be younger. Later work has suggested the lower slopes are of an age of, perhaps, 20–25 million years, although the signage puts them at 10 million years old. Furthermore, had the author of the posters been aware of the literature he/she would have realized that the 70 million years given for the age of the crest was a minimum estimate (Twidale 1994; 2000).
- (2) According to the Trail signage, sheet fractures and structures are due to erosional offloading, yet are also attributed to tectonic stress. While the origin of these forms is still debated (see, e.g. Merrill 1897; Gilbert 1904; Dale 1923; Twidale 1973; Twidale *et al.* 1996), the arguments presented in the signage could be more balanced and internally consistent. It could, for example, be pointed out that there are differing opinions on the origin of these landforms. To the contrary, the Trail signage asserts that the rock mass of Mt Wudinna was squeezed and that this caused curved 'patterns of deformation' to develop. Later, however, on the same sign, the explanation continues: 'As the land surface was gradually eroded, the pressure on the granite body was slowly released causing curved sheet structures, which give the hill its dome shape'. This is ambiguous and confusing.
- (3) A similar confusion attaches to the Trail sign dealing with large A-tents, or pop-ups, located on the western midslope of the inselberg. It is stated that 'The structure is thought to be associated with the release of stress along sheet partings in the granite caused by erosion'. There is a problem here with language: is it the A-tent, the form, or the sheet structure, that is due to release of stress? The statement is also confusing, because the release of stress is attributed to erosional offloading, yet in the captions beneath the diagrams illustrating stages in development it is stated that 'Lateral pressure causes arching of near surface layers' and 'Further pressure causes a fracture in crest of arch'. As with sheet structure, the message is mixed, though in fact there is clear evidence, both in the Wudinna district and elsewhere, that A-tents are associated with tectonic stress (Twidale & Sved 1978;

Wallach *et al.* 1993; Vidal Romani & Twidale 1998: 365; Twidale & Bourne 2000).

- (4) In the town signage it is stated that the granite of Mt Wudinna and the surrounding district is 'similar in appearance' to the rocks exposed in the Gawler Ranges, a few kilometres to the north. Granites are exposed in the west of the Ranges and also to the south, but the volcanics, to which the Ranges have given their name, are dominant. The granites are reddish-pink in colour, and vary in texture between equigranular crystalline and coarsely crystalline with large feldspar crystals, but none is comparable to the porphyritic dacite and rhyodacite, with prominent white or cream-coloured feldspar laths, typically 2–3 mm long, set in a fine pink, dark reddish-brown or in places black microcrystalline groundmass.
- (5) Tafoni are not caves, but alcoves or shelters. On the signage they are defined as caves and variously attributed to chemical weathering (on the town notices) and haloclasty, or salt crystallization, a form of physical disintegration (on the Trail sign).

#### Subsequent developments

These concerns over inaccuracies in the Mt Wudinna signage were voiced to both local and state authorities and, in reply, the authors' were told that the signage was 'professionally written by appropriately qualified people' and all was well. At this stage the services of a solicitor were engaged and a comment prepared including the points made here, and this was requested to be published in the *MESA Journal* (cf. Drew 2001) an in house journal of a government department. This move stimulated a letter from the Minister for Minerals and Energy with a limited acknowledgement of errors and omissions. Two 'obvious errors' were conceded. They concern Mt Wudinna's size relative to Ayers Rock and the claim that all granite slopes are flared – which happened to be the first two on the authors' list.

It is pertinent to ask why, if the errors that were admitted were so obvious, they were not identified by those responsible for checking the signage and its supporting material. Notwithstanding, a note conceding these errors and omissions appeared (Anonymous 2001: 50), although much to the authors' chagrin, the full accounting of errors and obfuscations was not published.

#### Language

Language is obviously of prime importance in signage. It would benefit visitors, especially those for whom English is not their first language, to have clear and grammatical English used in signage and advertisements, as well

as in booklets and scientific articles. Unfortunately the use of words in the signage under review leaves much to be desired, and extends to other tourist publications.

In 'Eyre Waves' (Doudle and Drew 2001), a booklet concerned with the Minnipa district, adjacent to Wudinna, erosion is said to have been 'continual' but 'with pauses'. That the flared bedrock form exposed in the reservoir at Yarwondutta Rock was already in existence prior to the excavation of the water storage in 1915–16 is important because it demonstrates that such concavities originate in the subsurface. Yet as described by Doudle and Drew (2001) the flares slopes can be construed as man-made, for it is said to have been 'excavated when the reservoir was made in 1915'.

It is confusing for anyone to read a language which is foreign to them and which is less than correct. For instance, an overseas visitor, even one reasonably proficient in English, may not realize that 'joined' ought to read 'jointed'. This example is taken from a sign at Pildappa Rock, and one which must be especially confusing, for whereas 'joined' means to be linked together, 'jointed' implies subdivision and separation by a fracture or parting.

### Principles raised

It is not suggested that all tourist signage is flawed. Some is accurate and imaginative. On the other hand this commentary has not discussed the only sites known to carry poor signage. The account of Mt Wudinna is not an isolated instance of irresponsible signage. It does, however, raise several points of principle.

- (1) Does the public in general, and teachers, students and scientists in particular, deserve accurate information, and reasoned interpretation, in scientific signage in public places? Or are poetic licence and science fiction in order? In February 2001, an employee of a tourism organization (partly funded by the South Australian Government), shown a list of errors in the Mt Wudinna signage, commented that when considering signage it has to be borne in mind that 'the signs are targeted at the general public'. This can be construed as suggesting that scientific explanation may not be appropriate for tourist signs.

Government officials have made similar written comments. Yet, those in touch with tourists know that sound information is appreciated and many endeavour to obtain authoritative data for their signage and other communication outlets. For example, in South Australia, the Nature Foundation and National Parks officers have obtained simple but accurate information for signage in the Gawler Ranges National Park and the splendid 'Corridors through Time' in the Flinders Ranges (Clark 2002), and in Western Australia the devel-

opment company responsible for Hyden Rock, which includes the well-known Wave Rock, has also used informed geological and botanical data (Twidale & Bourne 2001). Those in charge of parks and other recreation areas value accuracy, but tourist operators and some scientists, administrators and politicians evidently do not.

Moreover, the authors know from personal experience that discerning visitors have recognized the errors and internal inconsistencies in the Mt Wudinna signage for what they are, realized that material is falsely or not fully referenced, and noted that the information is presented with official support and backing. As a result, they have left the site with a poor impression of the knowledge and ethics of those responsible.

Of greatest concern is the relaxed, even uncaring, attitude evinced by officialdom to inaccuracies and imprecise English, criticism of which has been pejoratively described as 'academic' or 'pedantic'. Used incorrectly, words and punctuation can and do convey accurate meanings of what is intended rather than what is not.

- (2) False advertising is prohibited by law in many Australian States, but one enduring and repeated falsehood designed to attract visitors, and patently incorrect, is that Mt Wudinna is second only to Ayers Rock. Despite advice to the contrary this falsehood was maintained until very recently and has been published in a government department's in-house journal. While false impressions may be given inadvertently, even while using accurate information, these should be corrected as new discoveries emerge. Furthermore, it is common, though unfortunately not universal, practice for editors to give right of reply or discussion to contentious articles. Those in authority ought to realize that no stigma attaches to being mistaken. The main point, however, is whether government agents are exempt from rules that apply to common folk (or academics)? Is hyperbole acceptable in tourism (as opposed to commercial) advertisements?
- (3) In the scientific literature, it is obligatory to acknowledge sources of reported information. Yet, when using material for public signage, with a much wider and less knowledgeable (and hence more easily misled) audience, no acknowledgement of sources is considered appropriate or necessary. Surely laws concerning intellectual property apply to public utterances as well as those made in the scientific literature? Furthermore, even if the usual conventions concerning acknowledgement of sources do not apply to public signage, it is surely reasonable to expect that source materials be utilized with a modicum of accuracy and understanding.

- (4) Ought such flawed signage be corrected? And at whose expense? An official view stated was that 'Unless the signs are factually incorrect . . . it seems unlikely that they will be changed. The costs are prohibitive'. (This came after having such factual errors highlighted. The flawed Mt Wudinna signage was still on display in May 2003.)

Would it not be more sensible, simpler and more economical to have it correct the first time round? From a practical point of view, it is important, indeed crucial, not only to engage the most appropriately qualified person or persons to produce the words for particular signage and notices, but also to have all concerned, from contracting authorities, to writers, illustrators and rangers, to be involved at every stage from initial idea to the mechanical production of the signage, booklets or whatever. Changes and omission of words in order to achieve brevity, changes in word order and punctuation, and simple spelling errors can and do have changed meanings – in some instances disastrously.

## Conclusion

Experiences with a tourist site in South Australia have been briefly described. The concerns are not related to questions of intellectual content but to basic questions of accuracy and clarity. The authors believe ardently that the touring public, as well as students of every age, background and level, are deserving of the best available information, clearly presented.

Surely it behoves both administrators and practitioners to do their utmost to ensure that only the most accurate available information is offered to tourists, rather than perpetuate the 'it is only for tourists, so anything will do' attitude evident in some quarters at present. The blatantly and needlessly flawed signage put in place at some tourist venues amounts to mindless vandalism. It is comparable to the media's willing advertisement, encouragement and glorification of the wanton damage perpetrated in ecologically fragile environments by off-road vehicles. The authors have been accused of being pedantic and even – Heaven forbid! – academic; and it is readily admitted that the authors believe in the correct use of words. The authors have been accused of bias. Again this is justified – a plea of guilty is made to a prejudice in favour of accuracy. Once the perceived truth is treated as an optional extra, communication becomes pointless.

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### **Biographical notes**

Rowl Twidale is a graduate of Bristol (UK) and McGill (Canada) universities, but has spent all of his working life in Australia, first with CSIRO and then, and for 40 years, in the University of Adelaide. Now retired, he continues his field research in various parts of Australia, occasionally in Southeast Asia and Spain. He is the author of a dozen books and more than 300 articles in scientific journals. (School of Earth and Environmental Sciences, University of Adelaide, Adelaide, South Australia 5005, Australia; e-mail: rowl.twidale@adelaide.edu.au)

Jennie Bourne took her undergraduate and graduate work in the University of Adelaide and has worked with Dr Twidale off and on for more than 30 years. She also has retired, but continues to research and publish. Her interests are eclectic and include arid and semi-arid landscapes, granite landforms, palaeosurfaces, the history of ideas and, recently, the communication of geomorphological ideas to the public. (School of Earth and Environmental Sciences, University of Adelaide, Adelaide, South Australia 5005, Australia)

### **Résumé: Commentaire: pratiques, problèmes et principes en écotourisme: une étude de cas**

Bien que la plupart des renseignements fournis par la signalétique touristique soient valables, une partie est non seulement sérieusement déficiente mais aussi immorale car elle est erronée, le langage utilisé est ambigu, les interprétations sont absurdes et les explications sont confuses et même contradictoires. Cet article examine une telle situation ainsi que les efforts faits pour corriger la signalisation dans un cas particulier. Notre argument est que les visiteurs devraient s'attendre à recevoir les renseignements les plus valables; que les concepts même les plus scientifiques peuvent être expliqués correctement et simplement; que les protocoles qui gouvernent habituellement la publicité mensongère et que la reconnaissance juste et complète de l'origine des renseignements s'appliquent à la signalisation et à la littérature pour le tourisme et qu'un langage clair et précis est non seulement désirable mais même essentiel puisque les visiteurs proviennent de cultures différentes. La façon la plus efficace de s'assurer le meilleur résultat possible est que tous ceux qui s'occupent de signalisation soient inclus à tous les stades de la production, du début jusqu'au dernier tirage.

*Mots-clés:* écotourisme, éduotourisme, communication, langage, reconnaissance, péninsule d'Eyre

### **Zusammenfassung: Praktiken, Probleme und Prinzipien des Ökotourismus: Eine Fallstudie**

Während ein Teil der Informationen in touristischen Hinweisschildern zutreffend ist, finden sich aber auch solche, die nicht nur grob falsch, sondern auch unethisch in dem Sinne sind, dass falsche Ansprüche erhoben und verwendetes Material nicht in Quellenangaben genannt werden. Überdies werden übernommene Erklärungen durcheinander gebracht und sind

mitunter sogar zueinander widersprüchlich. Auch die Sprache ist manchmal zweideutig. Ein Ort, der diese Schwächen gut veranschaulicht, wird im Detail untersucht sowie die Bemühungen die beanstandete Ausschilderung zu berichtigen. Die Verfasser sind der Ansicht, dass die touristische Öffentlichkeit erwarten kann, die beste verfügbare Information zu erhalten; dass die meisten wissenschaftlichen Konzepte genau und einfach dargestellt werden können; dass die normalen Kodices hinsichtlich sinngemäßer Quellenwiedergabe und Quellenangabe angewendet werden müssen; dass eine klare Sprache nicht nur wünschenswert, sondern notwendig ist angesichts der möglichen Unterschiede in den kulturellen Hintergründen der Besucher. Der beste Weg zur Sicherstellung der bestmöglichen Ergebnisse in der Ausschilderung ist für alle Beteiligten die Teilnahme an allen Herstellungsstufen von der Konzeption bis zum Druck.

*Stichwörter:* Ökotourismus, Bildungstourismus, Kommunikation, Sprache, Quellenangaben, Halbinsel Eyre

