

The Circle and the Square: Nature and artificial environments

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This paper explores the notion of *naturalness*, and the extent to which the experience of nature is 'real', 'pure' or 'authentic' in relation to the outdoor industry (OI), whether it be adventure, development work or experiential learning. The square and the circle are used as concept 'hooks' to explore the relationship of the OI to nature. The paper is based on various small-scale research projects that explore a range of socio-psychological phenomena, such as assumptions, mindsets, popular metaphors and images that together illustrate how the OI sees or perceives both natural and artificially constructed environments. Some of this research has been conducted as part of two new books on 'adventure tourism' and 'experiential learning', whilst the remainder formed part of supervised student dissertations.

The paper examines the psychology of empathetic and combative approaches to nature as well as the relationship of the 'outdoor experience' and 'outdoor products' to nature. These relationships are shown to be significant to the future of the 'OI'. The paper also focuses on the emerging role of artificially contrived environments in adventure, learning and personal development. The paper discusses biomimicry and natural replication, bioproductivity (products and services that support the repair of the planet), and edventure (educational qualifications through adventure). The paper highlights an innovative 'view' of the environment, one that is 'not seen' by most people. The central argument presented in the paper is that OI has to some extent neglected the development of a deeper understanding of the paradoxical relationship of nature to the 'outdoor experience', the 'outdoor products' and wider 'society' in the provision of outdoor experiential events. Finally the paper offers a glimpse of the future artificial-natural mix that is both frightening and exciting.

Introduction

The Navajo identification of awareness with the air – their intuition that the psyche is not an immaterial power that resides inside us, but is rather the invisible yet thoroughly palpable medium in which we (along with the trees, the squirrels, and the clouds) are immersed - must seem at first bizarre...to persons of European ancestry.
(Abram, 1997: 237).

In a chapter called *The Forgetting and Remembering of the Air*, Abram (1997) beautifully describes the great significance of the air to many generations. He notes for example that the term 'psyche' is derived from an ancient Greek word which signified not only the 'soul' or 'mind', but also a 'breath' or a 'gust of

wind'. The air is a chorus of wind, breath, language and spirit, and it is one of the key ingredients of the outdoor experience.

The 'outdoor experience' is the central focus of a whole range of 'outdoor industries', including education, adventure, leisure and recreation, therapy, management development, youth work and social work (see Humberstone 2001). These experiences are often located in what is said to be the 'natural' environment. However cultural, social and political contexts continue to shape the experience of the natural world:

'the meaning that any event has depends upon the 'frame' in which we perceive it. When we change the frame we change the meaning....The more re-framing we do the more choices we have"
(Hardingham, 1998: 116).

This paper constructs a simple psychological profile that illustrates typical environmentalist and industrialist 'views' of the natural environment and investigates current and future OI 'views' of the natural environment. The paper questions the relationship of the outdoor industry with nature amidst the fundamentally negative wider industrial view of the environment that results in nature being seen as a set of forces and resources to be mastered and commodified, so continuing the separation of society from nature (see McNaghton & Urry, 1997). This separation is partially influenced by a deep-seated tension that results from the misinformed belief that consumption cannot co-exist alongside the conservation of nature. The paper then examines the escalating use of constructed, guaranteed experiences of nature by the OI in adventure, therapy and development, and offers some insight into the future use of 'artificial nature'. The paper is exploratory, and designed to encourage further debate. It is mostly taken from undergraduate dissertations, past papers and research for two new books: one on experiential learning (Beard & Wilson, 2002) and the other on adventure tourism (Swarbrooke, et al., in press).

The impression of 'Natural'

In a text called *Outdoor Games for Trainers* Consalvo (1995: 2) remarks that:

Blue sky, red sunsets, white puffy clouds, green fields speckled with flowers, pine covered paths, moonlit meadows, crickets chirping, birds singing, snow crunching under foot.....the squish of mud, the sting of hot sand and the cold of snow are just a few among the plethora of sensory images we experience while outdoors. These sensations often tap emotionally and spiritually uplifting memories.

The external natural environment is received through the senses, as raw material for the experience to be constructed internally through the process of perception (Gross, 2001). The experience is subtly dependent on human cognition, and is composed of many ingredients, each creating numerous sensations and

moods. These sensory experiences underpin the notion of a 'natural' environment, where 'natural' represents unspoilt, real, pure or authentic, even untamed and wild. This 'natural environment' in the UK however is of course substantially human-made.

...the English countryside is an exceptional creation – a corner of the world that is immensely old, full of surprises, lovingly and sometimes miraculously well maintained, and nearly always pleasing to look at. It is one of the busiest, most picked over, most meticulously groomed, most conspicuously used, most sumptuously and relentlessly improved landscapes on the planet.
(Bryson, 2000: 1)

The extensive windswept moorlands of the United Kingdom for example are semi-natural, existing as suspended vegetation states. Whilst being semi-natural the degree to which the floral and faunal components remain intact is the extent to which it is 'seen' or valued as natural by ecologists/environmentalists. Nature is classified through a complex scientific procedure whereby the natural environment receives a 'rating' according to many criteria besides *naturalness*, such as *rarity*, *fragility*, *diversity*, and *typicalness*. Ironically techniques designed to protect the natural environment actually reinforce the continuing separation of society from nature, disengaging and alienating the long established deep relationship with nature. A society-nature dualism is further echoed by the view of urban as not natural and natural as countryside (see Shirley, 2002), despite the *greying* of the countryside juxtaposed to the *greening* of the urban environment.

The 'OI' view of the natural environment

Research into the use of financial instruments to protect and regulate so-called 'visitors' to the countryside proliferated in the early 1990s. The recommendations of these studies are now being applied by countryside agencies, resulting, occasionally, in a restrictive, disciplinary approach to environmental protection that further disconnects society from nature (Beard, 1995). This may prove counterproductive in the long term as accessibility to nature is increasingly under pressure, with economic 'rules' used to control or prevent the 'experiencing' of nature. Restrictions increasingly confront the outdoor 'industry' in its use of the natural environment, which is viewed as a free resource:

Section 2(1) does not entitle a person to be on any land if, in or on that land, he-

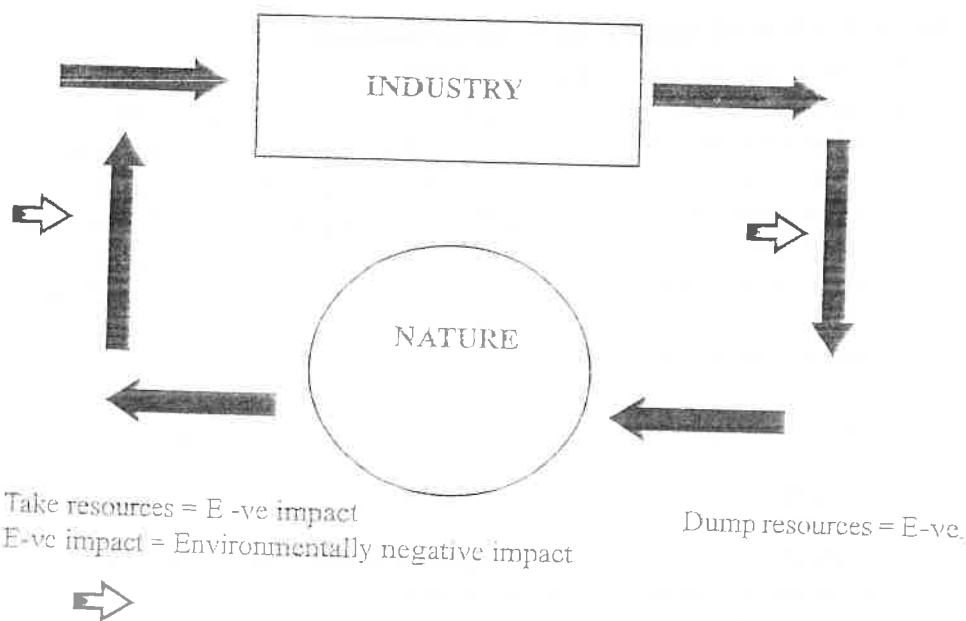
- (s) engages in any organised games, or in camping, hang-gliding or para-gliding, or
 - (t) engages in any activity which is organised or undertaken (whether by him or another) for any commercial purposes.
- (Countryside Rights Of Way Act, H.M.S.O., 2001)

This regulation creates a central debate about rights (e.g. to climb, walk, play) versus responsibilities (consumption, repair and payments for damage,

footpaths, styles, wardens, etc). The negative, industrialist 'free resource view' of the environment has been significantly shaped by such regulatory measures. Environmental policies, environmental taxation and environmental laws all play a role in generating and shaping a negative industrial view of nature. Likewise industrial environmental policy is typically negative as it seeks to merely reduce the business impact on the environment; reducing negative impact is to remain in negative impact state. Environmentalists too are increasingly seen by industry as being radical, negative and blaming towards industry; they rarely construct solutions. The view of the outdoor 'industry' towards the environment however is less well researched and documented.

If we represent the natural environment as a circle and industry as a square (angular), then the nature of the interaction of the circle with the square is of interest. Regulatory instruments are increasingly applied to separate the square from the circle in order to generate an industrial self-sufficiency, removing the dependency on the natural environment for resources, goods and services (including waste disposal), thus creating an *industrial ecology*. Protection is seen to require a separation, enforced through traditional *instruments of change*. Resources are then recycled in the industrial world without recourse to the *take and dump* relationship with the earth. Separation from the natural environment has a number of apparent benefits. This is shown in figure 1 below.

Figure 1
The Square and the Circle



- Instruments of change applied at these points above -
RESULTING IN SEPARATION - and the creation of an *industrial ecology*

The OI is neither a square or a circle, and does not easily fit with either of these two traditionally conflicting industrialist and environmentalist views of the natural environment, though the OI undoubtedly plays a significant role in the consumption and commodification of nature. Researchers in Canada for example recently commented that:

cliffs used by rock climbers had only 46 per cent as many vascular plant species as unclimbed cliffs had. The diversity of bryophytes and lichens was 60 to 70 per cent less than the diversity in undisturbed areas.....and the proportion of non-native species was three times higher....
(McMillan, 2002: 43)

If the OI is separated from nature through regulation the central ingredient of its products becomes increasingly obsolete.

The natural environment is viewed by the OI in a number of ways. The environment can be viewed as a free place to conduct business, or merely an exciting or *novel location* to hold experiential events (Irvine & Wilson, 1994). The environment can be viewed as a place to reflect and think and to *remove sensory overload* (Daudelin, 1996), creating powerful personal *sorting time* (solos) or as a place to *create distance* from dysfunctional behaviours or as a *healing location* or *therapeutic work* (Kellert, 1993; Miles, 1995) or in a physical, combative sense as *something to battle against*, to pit wits and survive. Most uses are functional and utilitarian. The dilemma facing the OI is how to stimulate and facilitate consumption of the outdoor 'experiences' (products) whilst at the same time promoting the conservation of nature; this will not be easy as it difficult to change the deeper green environmental view of 'natural'. Yet 'environmentalism' has also become a extensive industry as is witnessed for example in the size of the National Trust. This industry however maintains its role in nature politics as well as custody, control and gatekeeping of nature.

This environmental view of naturalness was recently tested (Holles, 2001). A group of environmentalists were shown four cards, each illustrating 'environmentally friendly industrial products'. A fifth card was then shown containing pictures of real paving slabs that soak up pollution in urban cities. Half the group were told that the slabs are pioneered by a Japanese motor company (the truth), whilst the other half was told they are pioneered by Friends of the Earth and Greenpeace (not true). Although the level of *acceptance* of the product was slightly greater when apparently developed with support from environmental organisations, the overall 'view' was one of disbelief and scepticism that these products could perform a biological function. The views ranged from 'bizarre', 'it looks too easy to be true', 'probably expensive', 'seems unbelievable', to 'it's a joke card!' Biological functions are seen as belonging to natural plants. The rejection of this integration of biological functions into industrial products was dismissed as unnatural, as an endorsement of a separatist view towards industry. Integration (of the artificial and natural) in order to *help nature* is rejected: they are seen as 'opposite' and incompatible.

Figure 2
The Environmental View and the Industrial View: The OK Corral
(E = Environment B = Business)

View 1: E not OK. B is OK. Business View E is <i>seen</i> as a commodity to be exploited but E = also a threat to industrial development, level playing field arguments, costly, etc.	View 2. E not OK. B not OK B = a threat to society E = is threatening
View 3: E is OK. B not OK Environmentalist View Environmentalists see business as a threat to biosphere	View 4. E = OK: B = OK. E & B both restore planet - E Provides new market for B - B provides solutions for E problems

(Beard, 2000)

How natural is outdoor learning and outdoor adventure?

The core of the environmentalist view is summed up so aptly by Lovelock: nature is characterised as an object of spectacle, beauty or the sublime; as a recreational space to be roamed across; as a state of presocial abundance and goodness as in the notion of natural healing; as representing a return from alienating modern society to an organic community; and as a holistic ecosystem which should be preserved in its diversity and interdependence (Lovelock, 1988, in Macnaghten & Urry, 1997: 14)

One strongly held view in the OI is that the natural environment creates emotional and spiritual feelings that form the outdoor experience; these natural places are where *the mountains and moorlands speak for themselves* (James, 2000). Yet the experience of nature is not always 'read' by participants and so its interpretation is facilitated, and the experience becomes slightly manufactured. For some time within the OI there has been a key debate concerning the extent to which intervention by others adversely affects this 'natural experience'. The extent to which any learning from the outdoor 'experience' is indigenous and 'natural' remains under continuous ethical scrutiny (see for example Loynes, 2000; Beard and Wilson, 2002). This has also been a well-documented concern of Outward Bound facilitation techniques over many years. Disproportionate intervention, and the use of outdoor experiences as a proving ground for fixed theories, is seen as controlling and unnatural (Loynes, 2000). Such is the extent of the unnatural separation of people from nature that, in development and therapy work, some young people returning from wilderness expeditions can experience a form of shock, with rejection and alienation towards their home environment if the homecoming is not supported (see Allison, 2000; Barrett & Greenaway, 1995). Learning and development, as part of the 'outdoor experience', is increasingly choreographed and controlled, as for example in outdoor management development. One outdoor development company states:

This shift towards a wider spectrum of delivery techniques has attracted a dedicated professional team that can design and deliver indoor seminars, outdoor exercises, desk top simulations, experiential games, video projects or motivational events.....over the past five years we have moved away from the use of outdoor pursuits in response to our clients' needs which have become more focused and sophisticated. As people become more exposed to development techniques more effective and high impact solutions are required. (Black Mountain Limited, Developing Your Human Dimension, 1995)

This continuous evolution of these 'high impact solutions' and 'new development techniques' increasingly involves the construction of artificial, manufactured experiences. Driven by the regulation of nature, new technology and commercial forces, many artificial adventure locations and development activities are springing up around the world. Nature's unpredictability and increasing inaccessibility might explain why the natural environment is increasingly being copied, manipulated, simulated, altered and merged or upgraded with human made components, as contrived environments might be more suitable for many commercial outdoor activities. The simple practical list below illustrates some of the product diversity in artificial adventure experiences; the term '*artificial*' might refer to all or some of the following ingredients:

- *a device* (bolts, gadgets, equipment)
 - *an activity* (canyoning, coasteering, roller-blading, indoor climbing)
 - *the elements* (artificial snow, artificial lights, simulated wind, simulated waterfalls)
 - *structure/ location* (an indoor climbing 'wall', rollerblade, rafting or slalom 'courses')
 - *or whole environments* ('resorts', adventure 'zones', adventure 'islands').
- (from Swarbrooke, et al, in press)

By reducing an outdoor experience to its raw components it can be rebuilt in a controlled way as part of the process of capturing and commodifying nature by the OI. Artificial experiences are increasingly being created for example in the outdoor retail industry and the adventure tourism industry (Swarbrooke, et al., in press). One Scottish superstore has its own indoor ice wall, climbing walls, mountain bike paths, a waterfall and rocky footpaths and the temperature can be lowered to minus 20 degrees centigrade, wind speeds can be increased to 20 miles per hour, and a tropical rainstorm can be turned on in an instant! These are all freely available for customers to 'experience', and of course, to try out new equipment and clothing before buying.

This transition of adventure, moving away from natural to artificial environments, has been episodic, shifting from the development of simplistic structures such wall bricks for the purpose of coaching climbing, right through to modern complex, specialist 'adventure resorts' such as the Ubin Lagoon Adventure Resort in Singapore (Chua Ee Kiam, 2001). In such artificial environments we see that the nature and degree of *risk* and *challenge* and *fun* appears to fundamentally differ in composition. Commercial pressures create a risk removal climate: it is

inherent in business law and practice, but the 'challenge' can so easily be increased and regulated to suit customers. Paradoxically the separation of the square from the circle results in the creation of an artificial circle.

Conservation and consumption are not always opposing forces

Significantly there are many environmental, as well as commercial and social advantages (and disadvantages) of artificial adventure sites and Figure 3 below highlights some of these.

Figure 3
The Advantages of Artificial Adventure Environments

Social • Can take part regularly. High levels of accessibility....by walking, public transport. For the urban and rural population. • Potential for greater social interaction – crowds, spectators, cafes, clothing, music, youth culture etc. • Reduced trespass – e.g. mountain bikers. • Reduced conflict with other users – public on streets versus skateboarding, and walkers in National Parks versus mountain biking. • Located off the 'streets'	Commercial • Potential to increase the number of participants and beginners. • All season participation possible. • Suitability for experienced and beginners. • Creates a new market of participants. • Suited to experiential development programmes for managers, youth, children etc. • Equipment and clothing sale/provision at location. • Cafe/bar and tourism functions. • Time and space zoning.
Environmental • Controlled environment – 'conditions'. • Less susceptibility to the unpredictable elements of the natural environment. • Less travel – people and equipment. • Potentially less environmental impact. • Less direct physical environmental damage. • Less pollution. • Less ecological damage. • Less environmental unpredictability. • Less risk.	Technical • Mimic the 'best bits' – features and obstacles. • Local natural environment may not contain the necessary features in one place. • A valuable training resource. • Creating new champions – in sport/recreation. • Added safety: youth/managers, etc. • Artificial lighting provides winter opportunities in UK – Floodlit • Controllable Conditions. • Can create Unique Challenges – totally new and NOT found in natural conditions....beyond nature.

(Beard & Wilson, 2002).

Artificial adventure environments can also make a significant contribution to the sensory, personal and emotional experiences that lie at the root of physical and mental health. However the psychology behind artificial adventure experiences requires more study, as many young urban people build strong connections with these artificial adventure environments, which are increasingly readily accessible, stimulating, sociable places that offer new challenges. Flanking such developments is the emergence of new sub-cultures (youth culture, music, clothes, indoor climbers, artificial ski & snow boarders, High Street Adventure etc.) and language (*coasteering*, *edventure*, and *buildering* for example) associated with this evolving artificial outdoor product range.

Such trends offer further opportunities for the OI to re-appraise the negative environmental impact of outdoor products, because, if consumption and conservation are not always diametrically opposed, then it is possible for outdoor experiences to improve or enhance the environment. The OI might increasingly contribute to an industrial economy that actually seeks to reduce impact **and** repair the planet in the future (Beard, 1998) realigning the OI status closer to the circle, and alongside environmental organisations. Some providers give a percentage of profits to environmental causes, some are moving towards carbon-neutral initiatives, others are creating forms of environmental levies. 'Payback' type projects can increase motivation by participants on outdoor programmes when people carry out 'real' service projects that contribute to a social or environmental end (so-called 'Anneka Rice Effect', see Beard, 1996b; Lally, 2001). Such projects are reported to be increasingly used in outdoor management development programmes (Beard, 1996a) and there is also a strong market promotion of a new generation of adventure and '*edventure*' outdoor products whereby outdoor adventure, travel and education combine to contribute to planetary repair or payback. Aimed at what I call the '*alternative 18-30 club*' a form of responsible adventure tourism now offers *green adventure* projects whereby travellers help on earth projects involving wildlife protection or wildlife monitoring and so forth. Significantly the square is hidden behind the circle, and these organisations are seen as *quasi-environmental* organisations, and include many firms such as Biosphere Expeditions, Frontier, Greenforce and Earthwatch. Some claim to be the first real '*field Universities*' offering qualifications alongside adventure, hence the term *edventure*. Such initiatives may slow the separation of the circle and the square. Conservation and consumption therefore do not always have to be 'viewed' as opposing forces (Beard & Wilson, 2002).

Future learning and the outdoors

Designed by nature – perfected by Speedo..... features are based on those that make the shark an extremely fast mover in water. The fabric mimics the v-shaped ridges, called dermal denticles. These make the shark cut through water by sucking it closer to the body and reducing drag.
(New racing Speedo swimming costumes, 2000).

Nash (1973) argues that as societies develop economically they appreciate 'nature' more and 'civilisation' less. In my view nature will continue to be valued more as it disappears, but societies will also seek to replicate it, mimic its powers, and eventually find it irresistible to go *beyond nature*. These are the issues that will spawn a significant debate for the OI of the future, as *biomimetics* increasingly has significant commercial advantages, and where products can be developed that actually improve the environment. Because people are being pushed to create their own nature, real nature is in danger of becoming obsolete. Artificial ecology is now co-evolving with nature as nature is elaborately and fundamentally entwined with the artificial. The darkness of the tyre tunnel, the complexity of the spiders web, the whistle of the bungee cord as you fall, the whoosh of the flying fox, the rhythmic inhalations of the oxygen face mask on Everest, the crunch of artificial ice, the great adrenalin rush on the leap of faith and the rolling sound of skateboard wheels on the MDF board..... *designed by nature, perfected by the OI*. Where next? A half-living robot, with a living brain, has been developed in the USA. The living brain, floating in a container of cool, oxygenated salt fluid, is from the larvae of a lamprey, a bloodsucking fish. Other recent developments include artificial eyes, muscle suits enabling people to leap thirty to forty feet in the air (for military use), chip implants for reading the emotions of other people, and predictions by BT futurologists of orgasms by e-mail.

Conclusion

The OI in all its diversity sees itself as fundamentally benevolent towards nature, and, by many, it is not even considered an 'industry'. Nature is an essential component of most OI products and so it is less negative towards the environment than other industries. At the same time the OI is experiencing regulatory forces that encourage a 'moving away' or separation from nature, so that nature might be protected despite nature being central to the OI product. If the OI is denied access to nature, to what extent are people denied a key 'experience' of nature, and how is this experience different from the National Trust or RSPB experience? The relationship between 'nature', 'business', 'product' and 'experience' requires further discussion.

Nature is also unpredictable and the right 'experience' cannot be guaranteed or read when provided by nature. This leads to the commercialisation of outdoor experiences that are increasingly being artificially manufactured through the mimicry of nature. There are many environmental, social, technical and commercial advantages to this process, but there are also many disadvantages as we become estranged from and lose touch with nature. Young people increasingly appear to find artificial adventure sites more accessible, particularly in urban environments, and, in a similar way to the coalescence of the UK urban wildlife 'movement', the OI is now witnessing a comparable coming together of artificial adventure seekers, with its associated sub-culture of clothing, music and language. They create their own places and journeys.

Choices concerning the consumption of nature and our relationship with nature are crucial if our OI is to co-exist alongside the conservation of nature. Nature will still speak for itself, but as we go *beyond nature* few might hear its voice.

Nature has become imbued with so many virtues that the term 'natural' no longer confers unambiguous meaning. We have refashioned nature, in our minds, as well as in test tubes and fields, transforming ecological processes into political axioms.....

(Goodman and Redclift, 1991, in Redclift and Benton, 1994: 55)

The reading of nature is something that is learnt, and so, I presume, it can be unlearned?

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Whose Journeys? The Outdoors and Adventure as Social and Cultural Phenomena

**Critical explorations of relations between
individuals, 'others' and the environment**

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