

Geoparks... A Vision for the Future

Geoparques... Uma Visão Sobre o Futuro

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ABSTRACT

Geoparks, a UNESCO initiative, are emerging as the 21st century's new territories. Most heritage territories need visibility on the ground so as to offer a territorial image, to justify management and team work, and, above all, to obtain funding. The 21st century Geoparks must have something novel to offer in the broad spectrum of protected and managed nature areas. Geoparks are not just territories to teach geology, since they can become an experimental domain where the perspectives of the philosopher, the writer and the artist can be integrated. Nature areas must be places apart, where visitors will realize they are... elsewhere, in Nature.

Keywords: Geopark; Geological heritage; Sustainable development; Territory.

RESUMO

Geoparques, uma iniciativa da UNESCO, estão emergindo como os novos territórios do século 21. Muitos territórios patrimoniais necessitam de visibilidade porque oferecem uma imagem territorial, justificam gerenciamento e trabalho de equipe e, acima de tudo, financiamento. Os geoparques do século 21 devem ter algo novo para oferecer no amplo espectro de áreas naturais protegidas e gerenciadas. Geoparques, não se limitam a ser territórios para ensinar Geologia, e sim tornar-se um domínio experimental onde até as perspectivas do filósofo, do escritor e do artista possam ser integradas. Áreas naturais devem ser mantidas independentes, onde os visitantes perceberão que eles estão... na Natureza.

Palavras-chave: Geoparque; Patrimônio geológico; Desenvolvimento sustentável; Território.

INTRODUCTION

Geoparks, a UNESCO initiative, are the 21st century's new territories, where conservation and enhancement of geological heritage cohabit with experimentation and sustainable development. Geoparks are the outgrowth of a European LEADER⁺ program developed in cooperation with UNESCO by four territories with a significant geological heritage: the Réserve Géologique de Haute-Provence (France), the Petrified Forest (Greece), Vulkaneifel (Germany) and Maestrazgo (Spain). In 2000, a strong and cooperative European Geopark Network formed under the management of several European programs. Since 2004, UNESCO has been developing this initiative worldwide, and the UNESCO Global Geopark Network (UNESCO GGN) now boasts 54 territories on all continents (Figure 1), structured into Regional Networks.

Undoubtedly, because geology took on inheritance value throughout the 1980's, leading to popular recognition of the "Geological Heritage" concept, the Geoparks initiative is a success story. For them to continue to prosper and to disseminate worldwide, the concerned community will need to take responsibility but also to place Geoparks in perspective within the context of the existing types of nature reserve. Indeed, there are seven types that interest us here, and their timeline spans three centuries:

1. National Parks (1872). The first was Yellowstone, covering parts of three states in the United States (Wyoming, Montana and Idaho, Figure 2, another early monument in the American West). Preserving biodiversity, landscapes, cultural heritage and environments, 1500 such areas now exist the world over, with 400 in Europe.

2. Regional Parks (1968). This "second generation" relies on cooperation between municipalities, stressing sustainable development in rural area whilst conserving cultural and natural heritage. There are 600 in Europe, including the first, Audoumerais, in France.

3. Biosphere Reserves (1976). Initially launched by UNESCO, such areas and adjacent land are managed in a dual perspective of conservation and sustainable use of natural resources. They are the first to integrate the notion of intangible heritage (including sacred sites), with 480 such reserves in 100 countries (160 in Europe).

4. World Heritage Properties (1978). These include sites considered to be of outstanding value to humanity because of the cultural and natural heritage attached to them. Numbering 830 today, they represent both the built environment and nature (with 162).

5. Leader Territories (1991). This European Community program calling on municipal involvement was

launched to support sustainable development policies in rural areas that are coherent on a sociological, cultural, geographic and economic plane. More than 800 have currently been set up.

6. Cultural Parks (1997). In Spain, a specific territory where both tangible and intangible types of heritage are integrated. In the five that exist today, the focus is on conserving and restoring heritage, as well as promoting culture and sustainable development.

7. And Geoparks (2000)...

WHO'S WHO?... PARCELLING UP THE EARTH

All told, Europe possesses 1190 heritage related territories (excluding WHP sites and the 800 LEADER zones). Most need visibility on the ground so as to offer a territorial image, justify management and team work, and, above all, funding from European, national, regional or local administrations. This generates a kind of inflationist "flag race" producing not only extensive "contamination" by multiplying "advertising" marks (Figure 3), but also creates a confused image for the local population and the general public. Confronted by such inflation, Geoparks must innovate, devising a new vision of territory. They cannot, like a national park specialized in geology or a Biosphere Reserve rich in geological heritage, simply replicate the geological model of management from pre-existent territories.

Why must a Geopark insist on how it differs from other similar structures? First of all, as a matter of strategy, because we know today that a Geopark's development is limited in time. In Europe, we have the opportunity to analyze one of the few examples of a territory that has been operating as a Geopark for 20 years: the Haute-Provence Geological Reserve (Figure 4), one of the founding territories behind the current Geoparks dynamic, and the site where the International Declaration of the Rights of the Memory of the Earth was adopted in 1991. This innovative territory enjoyed considerable success nationally, and its public increased over the first ten years.

A recent decline in the number of visits, also observed in some other older Geoparks, has prompted studies and analyses, with the following conclusions:

a. The public interested in Earth Sciences is generally limited, and over-specialization in geology has restricted its development over time.

b. Creating other Geoparks in a national or international context decreases the offer's originality, "trivializing" the theme.

c. Many other spaces (National Parks, Regional Parks etc.) feature increasing numbers of natural attractions with a geological component. In many European countries, they

compete for the same public, thereby limiting the drawing power of the Geopark theme.

A 21st century Geopark must have something novel to offer in the broad spectrum of protected and managed nature areas, an originality reflected in its name. There is confusion around the meaning of “geo” as applied to territories, too often construed as the “geo” of “geology”, not that of “Earth”. This misunderstanding harms not only the territory’s development potential but also its conceptual value and impact on local population or visitors. The semantic ambiguity, causing Geoparks to be confused with other spaces, makes them places to learn “geology” or “the history of landscapes” or, best-case scenario, “the story of Earth and environments of the past”, a role already ably assumed by certain regional parks, that also implement strong sustainable development policies.

To create a territory with specificity, the Geo = Earth is the proper equation, but here aren’t we questioning the reality of geology’s contribution to the modern world? Is it only a branch of science? Is its role limited to describing environments of the past? Is recognizing an ammonite an aim in itself? But mightn’t we, rather, see its objective as more symbolic, more essential? For geology allows us to merge with our current world view a time scale on a very different order, that of Earth, hence placing in perspective our society’s temporal relationship with a world it calls its own. Geology thus urges us to stop taking for granted the anthropocentric vision of time that pervades today’s society.

Geoparks’ true conceptual originality is thus not in geology: they offer not only a reflection on time, but also challenge us to undertake an initial voyage through that enigmatic dimension. Geoparks, not just territories to teach geology, can become an experimental domain where the perspectives of the philosopher, the writer and the artist (Figure 5) can be integrated. Thus, rather than a “scientific” or “nature” territory, they emerge as “cultural” territories of far wider importance.

All have structural similarities: a territorial identity, an “exceptional” heritage (natural or/and cultural), more or less protected, an economic impact, mostly centred on the concept of sustainable economic development etc. Despite differing “themes”, their logistics remain similar, always involving poor and outdated basic equipment:

1. On-site museum(s) - for the most competitive territories the term “Interpretation Centers” may apply.
2. Marked trails with an educational vocation.
3. Information plaques or tables.

This trilogy has undergone few real variations since the equipment in the first National Park in 1872, more than 137 years ago. However, we may still succeed in

reinforcing the Geoparks’ role and meaning within the array of world territories, but to do so, Geoparks will need to be conceptualized within the historical context of other protected nature areas and rethink their semiotic roots.

WHAT “SOCIETY-NATURE” RELATIONSHIP DIRECTS THE SPATIAL PARTITIONING THAT RESULTS IN OUR TERRITORIES?

“To territorialize” is to project a system of human intentions on a portion of the earth’s surface (Raffestin, 1996).

Although it is obvious, we must bear in mind that natural environments, in Europe at least, no longer exist, for all have undergone transformations due to man. Because natural territories have disappeared, we are reduced to safeguarding some of their components by somehow applying Rousseau’s lesson, creating an artificial nature such that it assumes the aspect of what we think nature is or what we want it to be. Such areas resemble “Julie’s Garden” (Rousseau, 1761), a form of “reinvented” nature, something completely rebuilt where man’s hand lurks behind the scenes, in short, the material expression of a nostalgic dream. Today, most of our protected territories are only “places where we experiment with an ecological management of anthropogenic ecosystems, ones where we are reconciling natural heritage conservation with productive and recreational practices” (Terrasson, 1994), an observation that has led some sociologists to style them “third-type zoos” (Vourc’h and Pelosse, 1993). Like it or not, this is the truth about our spaces, produced and fostered by our “anti-nature” society, as Francois Terrasson calls it.

MARKING NATURE AREAS, OR... SIGNS, SIGNS AND MORE SIGNS...

The definition of Nature that might apply here is “what exists without human intervention”. Nature areas, once designated, must be signposted and equipped (Figure 6), but if we intervene there, the result clearly ceases to be natural. This reasoning, although simplistic, is conceptually interesting. In Western society, nature is not accepted on its own terms, but must conform to civilisation’s standards. “Nature is fine, but, better than that, it must be usable and, in order to be so, the outside codes must be applied inside Nature.” Otherwise, what would happen? People would risk getting lost, or feeling alone in an alien environment; they would miss seeing a unique botanical station and would get their shoes wet because of an improper trail across a marshy area. But one might also “risk” feeling free. To be socially acceptable, nature cannot stand on its own: it must be dominated and domesticated, marked and moulded for human use. In other words, it must be secure. The nature in

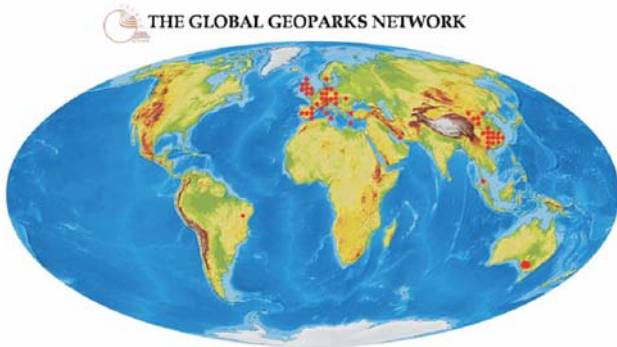


Figure 1. A world map showing the distribution of UNESCO's Geopark Network, 2009.

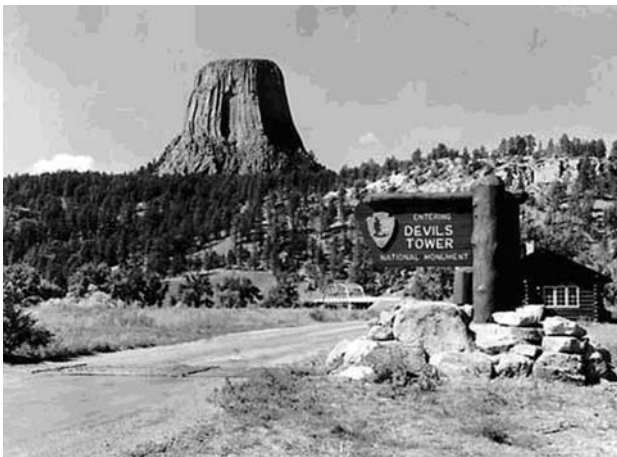


Figure 2. Entrance sign and ranger station at Devils Tower National Park. (Photograph by Wayne W. Bryant, 1956). © USA National Park Service Historic Photograph Collection.



Figure 3. Seawards entrance to the Kilim Geoforest, in the Langkawi UNESCO Geopark (Malaysia).



Figure 4. An excursion on one of the trails in the Haute-Provence Geological Reserve (France).

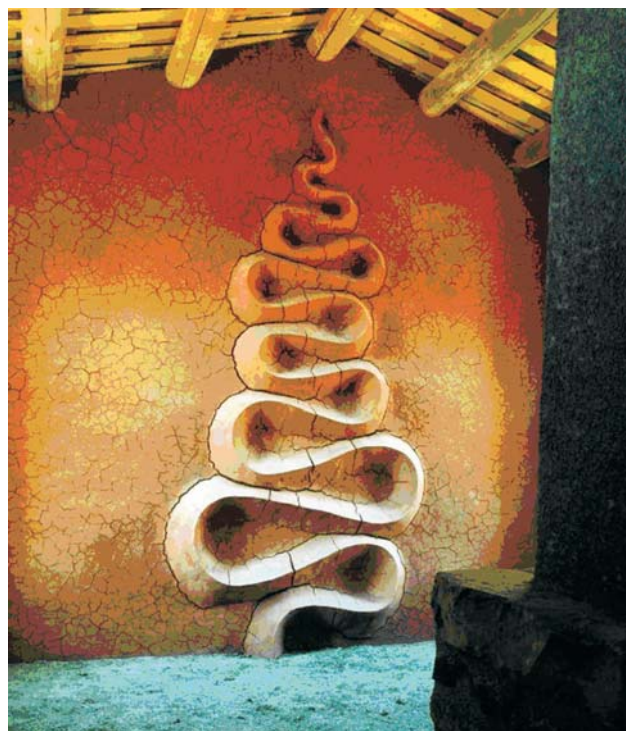


Figure 5. The Esclangon art shelter in the Haute-Provence geological reserve (Digne, France): an Andy Goldsworthy creation. © CAIRN-RGHP-Musée Gassendi.

these territories has been “de-wilded”. Trails must be safe and easy to walk (Figure 7). The product supplied must reflect a mythic image of nature, often contrary to nature itself. Our signs must be discreet and imitate nature. The whole is a just “nature show” designed for the visitor’s consumption, in which s/he will be totally “channelled”. Signposts direct him/her towards what he must consume, what s/he has to see, how s/he should see it, what s/he must learn or understand from it. Where s/he must stop, sit and eat his/her picnic...

These areas are not different territories, merely different forms of “nature merchandise”. Illustrating the same concept, they multiply and in time begin to compete for promotion, for image, striving only to gain more economic clout. Nature and reflection are no longer at issue, just more consumption. In Geopark philosophy, this is the big trap. Operating with a complex montage of institutional funding, they must demonstrate profitability as tools or motors of local sustainable economic development, criteria being number of visitors, number of overnight stays, sales, guided tours and so on...

Creating new territories, true territories for tomorrow, means calling into question what they mean, how to equip them and what role they may play.

THE BASIC TRILOGY

What territory could run today without its museum(s), its plethora of information panels and discovery trails? Do some propose alternatives today? Recent evolution in equipment affects form, design, appearance, but never essence. Doubtless under increasing pressure from financial institutions and to draw more visitors, their managers build and equip uncritically. The bigger and more prestigious a



Figure 6. An information panel in Glacier National Park (photographer: Jack E. Boucher, 1960). © USA National Park Service Historic Photograph Collection.

museum is, the better. The more densely signposted the territory, the better management it indicates.

If there is one sentence to retain from the interpretation bases out of North America, it is this: “Interpretation is done so the public will love things”: “love”, not “know”. We can love music without being able to read a score or play an instrument. Similarly, it is possible to derive emotion from nature without knowing the name of an orchid or the fantastic story of two clashing tectonic plates that sculpted the surrounding landscape. This debate is obviously not new, but is it really outdated? Shouldn’t it still be on today’s agenda?

Nature areas must not be only open-air laboratories to teach nature and even less geology; they must be places apart, where the visitor will realize s/he is... elsewhere, in Nature, isolated from society, unaided and undirected, in a place foreign to the familiar urban setting: where s/he will experience sensations missed or even unsuspected.

HERITAGE: TANGIBLE AND INTANGIBLE

In an Aristotelian world view, the composite elements of geo-biodiversity in natural territories are dissected for teaching purposes: the tangible heritage is what is valued and protected. But what of the intangible one, that including customs and oral tradition, language, poetry, religious ceremony... and the “Spirit of Place”? By disguising the nature of the land for the sake of usability, the will to go in search of the “spirit of the place”, its “genius loci” as the Romans called it, is lost. This intangible, even sacred, component sent the ancients through these lands and sometimes caused them to bide there, to be buried or simply to leave their mark there, carved or painted for whatever reason. “The spirit of place



Figure 7. Lesvos Petrified Forest Park (Greece): a group of students on the trail.

is the site's soul, its *raison d'être*, and the condition for its survival... Any kind of territorial management, then, presupposes its identification and its appreciation" (Prats and Thibault, 2004).

Evoking this intangible facet of heritage is no longer seen as eccentric. UNESCO, together with ICOM (International Council of Museums), has for several years been working to this effect, resulting in the adoption in 2003 of the International Convention for the Safeguarding of the Intangible Cultural Heritage. Not only is this subject relevant, it constitutes a priority that must be addressed in rethinking natural territories, and what the role of the Geoparks might be in this context.

CONCLUSIONS

New UNESCO territories for the 21st century, Geoparks cannot be simply traditional protected nature areas for teaching and appreciating its geological components "with sustainable development in mind". Endowed with the time-scale of Earth's history, the Geopark's vocation is to be something

totally new and different, allowing us to feel space, to think time, and by so doing to set the present within a past-future continuum. It must clearly afford a different approach to, a different relation with, "nature", developing new forms of management and equipments. Its mission is to propose a new philosophy of territory, and it must deploy an overall reflection on the holistic and symbolic meaning of geological heritage.

New options for the Geopark concept must accordingly be defined. We must strive to limit traditional means of communication, i.e., by phasing out information panels; revising museum philosophy; integrating art and culture; resorting to new technologies to convey on-site information without visual contamination; enabling each site to present not only a single vision of the past but also a multiple vision of possible futures.

This is how to initiate a reflection that will be fundamental and bear fruit for the future of Geoparks. Undoubtedly the current integration, in the UNESCO network, of Geoparks reflecting non-Western cultures and traditions will be an invaluable contribution to the continued exploration of the meaning these novel structures should be invested with.

What is a UNESCO Geopark?

It is a territory which includes a particular geological heritage and a sustainable territorial development strategy. It must have clearly defined boundaries and sufficient surface area for true territorial economic development. It must comprise a certain number of geological sites of particular importance in terms of their scientific quality, rarity, aesthetic appeal... The majority of sites must be part of the geological heritage, but their interest may also be archaeological, ecological, historical or cultural. A Geopark has an active role in the economic development of its territory through enhancement of a general image linked to the geological heritage and the Geotourism. It has a direct impact on the territory by influencing its inhabitants' living conditions and environment. The objective is to enable the inhabitants to

reappropriate the values of the territory's heritage and actively participate in the territory's cultural revitalization as a whole.

The Global Network of Geoparks

As of April 2009, 58 National Geoparks (Europe 34, China 20, Brazil 1, Iran 1, Malaysia 1, Australia 1) are currently members of the Global Network of Geoparks assisted by UNESCO (detailed list available on website <<http://www.unesco.org/science/earth/geoparks.shtml>>). Two countries have proposed new candidates: Gondwanaland Geopark (Namibia); M'goun Geopark (Morocco). On addition, the following countries have expressed their interest: Australia, Brazil, Canada, Chile, Finland, Iceland, Japan, Kenya, Mexico, Switzerland, Vietnam, Indonesia, India, Korea, Philippines.

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