

Geotourism and the underestimated potential of ‘ordinary’ landscapes. The Belgian case

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Abstract

Geotourism is often associated with phenomena such as volcanoes, large scale erosion or rock formations. Less spectacular landscapes get little credit in terms of geotourism potential and therefore possibilities for tourism development are overlooked. Belgium is a typical example of a densely populated country with few spectacular natural landscapes where the concept of geotourism is not very well known and subject of conflicting interpretation. If geotourism projects pop up they are small scale, lacking collaboration between stakeholders in general and exchange of information between geo-sciences and tourism in particular.

A qualitative research was conducted in Belgium, focusing on a number of case studies, as to explore the fields of tension that prevent geotourism from developing into a innovative niche within the tourism offer. It is clear that a broader acquaintance with the concept and with its conservation as well as local development potentials should be stressed but also that a number of premises should be fulfilled as to open a window on success for geotourism in ‘ordinary’ landscapes.

Keywords: *geotourism, Belgium, landscape values, geo sciences, culture, niche*

Introduction

Geotourism shows a number of similarities with eco-tourism, with a focus on landscapes (geomorphology) and geology. Further, it is often associated with spectacular landscapes and natural phenomena such as volcanic activities, erosion and formation of rocks. Less spectacular landscapes seldom are believed to have a geo-touristic potential and therefore miss a tourism development. Some scientific experts do underline this potential but they often lack the tourism expertise to develop these landscapes into a successful tourism product.

Since Belgium has many interesting landscapes but none of them very extended in surface because of the high population densities and none of them really spectacular, geotourism is not well developed and little awareness about the opportunities for tourism can be found among the different stakeholders. Therefore, geo-tourism in Belgium is not well known and is characterized by fragmented projects and initiatives. Further, the concept of geotourism is subject to diverse visions and interpretations among the different stakeholders, resulting not only in a lack of collaboration but, to some extent, also in friction. Since many countries and regions around the world are in a comparable situation, the analysis of Belgium's underestimated 'ordinary' landscapes can shed some light into ways to join forces and valorise their potential in terms of leisure related geotourism.

In this contribution, different –sometimes conflicting- interpretations of the concept 'geotourism' are detected and the attitudes from the different stakeholders on the supply side towards each other and towards the product, are clarified. Therefore, an extended qualitative research was conducted on (the visions on) the potential of geotourism in Belgium. The research covered the supply side as well as the demand side (visitors) but we will concentrate on the supply side in this paper. The first part will develop the lack of consensus about a definition and the main criteria for geotourism development. In the second part, the results from our research on geotourism in Belgium are presented. .

Geotourism defined

Geo-tourism is typically linked with natural landscapes, characterized by geological and geographical elements (Newsome & Dowling, 2010). Its origin is situated in the eighteenth century during which the Romantic movement considered landscapes aesthetic and even art objects (Gordon, 2012). Nevertheless one had to wait for the first generally accepted and widespread definition of geotourism until the end of the twentieth century.

“The provision of interpretive and service facilities to enable tourists to acquire knowledge and understanding of the geology and geomorphology of a site (including its contribution

to the development of the Earth sciences) beyond the level of mere aesthetic appreciation (Hose, 1995;p. 17)."

In this definition, geo-tourism goes beyond the purely aesthetic, incorporating the educational aspect as a crucial element. This implies that, gradually, the transfer of knowledge on geological sites and its development processes became of growing importance not only in the description of geotourism but in its objectives as well. Following Hose's definition (1995) several definitions confirmed aesthetics and educations as pillars for geotourism but, interestingly, a shift could be detected towards a more holistic approach. More and more, geotourism was presented as a combination of nature, earth sciences, culture and local communities which, in interaction, were able to model the geotourism experience (Stokes et al., 2003). Finally, the National Geographic (via Jonathan Tourtellot) comes up with the following definition which was underpinned by a decision taken at the 'International Congress on Geotourism (2011)' in het Arouca, Portugal:

"geotourism should be defined as tourism which sustains and enhances the identity of a territory, taking into consideration its geology, environment, culture, aesthetics, heritage and the well-being of its residents. Geological tourism is one of the multiple components of geotourism (Tourtellot, 2011)."

Based on several definitions (Stueve et al., 2002; Slomka & Kicinska-Swidarska, 2004; Sadry, 2009; Amrikazemi, 2010; Joyce, 2010; Newsome & Dowling, 2010; Bosak et al., 2010; Dreesen, 2012) the fundamental characteristics of geotourism can be summarized as follows: (1) tourism situated in a natural environment (geology, geomorphology and geography), in interaction with the cultural elements in the landscape; (2) aesthetic value; (3) transfer of knowledge from the geo-sciences (education); (4) conservation of geo-values; and (5) interpretation of geo-values (Hose, 2012). As for the concept of sustainable tourism as a whole, one can see the possible friction between the conservation of the landscape on the one hand and its disclosure for tourism on the other hand, causing a friction between scientific and touristic interests. Indeed one can't deny that a disclosure for tourism represents risks for natural resources and landscapes (Weaver, 2003; Hall, 2010; Hose, 2012) among others because geological and geomorphologic elements are often neglected because of a lack of societal awareness of their value as a resource and as a product (Hose & Vasiljevic, 2012).

In that respect, Belgium is no exception since little awareness about the intrinsic geo-values in a landscape can be found among the general public. As a result, the drive to maintain them in a sustainable way is mostly generated by scientists, among others because most geological and geomorphologic elements are not striking and even difficult to perceive.

Geoparks are interesting examples of a combination of protection of geo-sites and geotouristic initiatives and a model for sustainable local development (Zouros, 2004; Gray, 2008; UNESCO, 2012). Natural resources or land forms, each of them being of limited scientific, historical or aesthetic value, and therefore not able to develop into an autonomous geotourism site, support and strengthen each other when gathered in a geopark (Dowling, 2011; Hose, 2012). Of course, a geopark needs a certain extent and scale, further supported by a sustainable management and a strong involvement of local actors, enabling economic development and educational initiatives as well (UNESCO, 2012). Many regions are not able to respond to those terms while the visitor has often unrealistic expectations in that respect. The fact that visitors' satisfaction with the geotourism experience is one of the essential conditions to assure a sustainable geotourism development on the long term (Dowling, 2011), creates a vicious circle between a lack of investment in the product and a lack of awareness among the general public.

This does not imply a total absence of models for geotourism that can steer and fuel a successful geotourism development, beyond spectacular and large scale landscapes. The model of Dmytrowski en Górna (2010) is an interesting example in that respect.

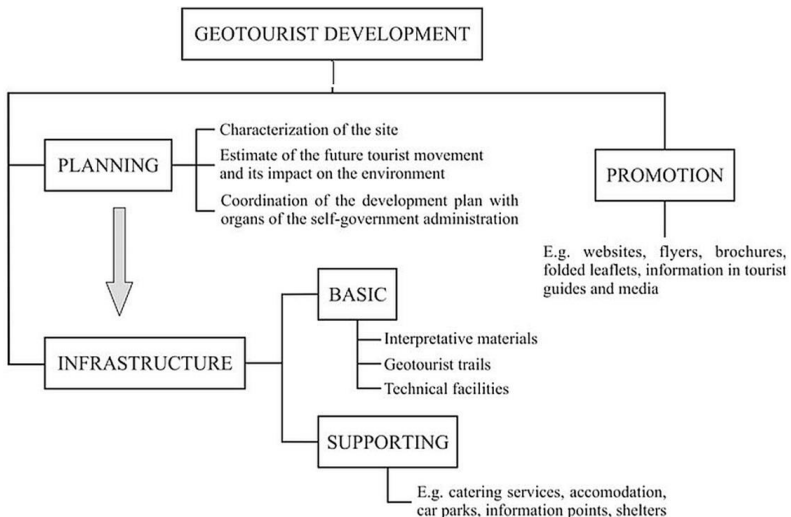


Figure 1: Model for geotourism development (Dmytrowski & Górna, 2010: 446)

Basically, this model is very similar to most models for (sustainable) development of tourism sites or destinations. It makes clear though that planning is needed and that it starts with an inventory of potential geo-sites and landscape features which may be sufficiently attractive to visitors/tourists (Hose, 2012). Next, it is important to think in terms of primary

product (e.g. walking or hacking trails, visitor centres, information and interpretation materials such as information panels) and not to neglect the secondary product (e.g. accommodation and/or ho-re-ca, means of transportation etc.) (Burlando et al., 2009). This is obvious for experts in tourism but is not at all clear for scientists in earth sciences or officials focusing on nature and landscape conservation. The same stakeholders may not be very promotion and marketing oriented while of utmost importance to create awareness and interest among the general public. While developing the core and the supportive product, the involvement of the local population -including their 'sense of place' and education as well as interpretation on an appropriate level- collaboration and experience oriented actions, should not be taken for granted and need active planning and management

Geotourism in Belgium

- Methodology and study areas

The aim of our research was to bring the insights on geotourism from the international literature to the test in a Belgian context and detect the potential for a sustainable geotourism development. Research on a Belgian level means that one is confronted with independent actions and agencies according to the regions (Flanders, Wallonia, Brussels) since (landscape) conservation as well as tourism development are regional competences within the federal state. In order to learn from differences within the country, we carried out interviews with relevant actors on geotourism development within Flanders and Wallonia. It has to be mentioned that, in terms of landscape, contextual circumstances in Wallonia and Flanders are quite different not only from a geomorphologic and geological point of view but also in terms of population density, urbanization and industrialization being much higher in the latter. Within these regions we focused on two geo-sites that are forerunners in terms of geotourism development: Hageland Circuit of (natural) Stones (in Flanders) and the Domaine des Grottes de Han, including a wildlife park (in Wallonia).

Among the interviewees, we contacted actors from tourism and science while the topics handled, were based on the model presented in section 2. The themes and interviewees can be found in the annex 1.

- Overview and discussion of the results

The domain with the Han Caves has a real strong geotourism potential. The First steps towards a geotourism product are already taken with the Development of 'sentier géopédologique' (geo-pedological route) with a walking trail across the natural landscape with additional guide book that explains geological aspects and processes in the landscape. Nevertheless the approach is highly scientific and quite narrow in approach. The 'Maison du tourisme de Val de Lesse' (tourism agency of the Valley of the River Lesse) applies a

broader interpretation and introduces systematically geotourism elements on landscape forms and (natural) stones in its walking trails along with cultural information (from the interviews).

The other case about the (Natural) Stone Circuit in the natural area of Hageland (Flanders) reflects this holistic approach as well, notwithstanding the fact that a focus on stones supposes a narrow geotourism approach. This can be explained by the fact that not only the origin of the stone is explained but also its use and how its exploitation has left many traces in the landscape. All this interpretative information is gathered in a guide which, in turn is input for the development of a cycling route project (from the interviews). Other interviewees point out that the holistic approach, in which cultural and geographical, geological and biological elements are intertwined, is the best way to valorising the potential of less spectacular landscapes for geotourism while feeding cycling or walking trails with this material. According to the interviewees, this presumes that the approach (at least in Belgium) becomes less strict and in-depth from a scientific point of view. In turn this meets resistance from scientific circles who still support the geotourism definition from Hose (1995) (see section 2) and this creates tensions between stakeholders who should be partners.

Beyond a disagreement on the definition of geotourism, other barriers can be detected. The very starting point, namely a complete inventory of potential geotourism sites is lacking¹. In other words, a systematic list of geological and geo-morphological elements in the landscape *with a limited visibility* and –therefore- with a limited attractiveness does not exist; inventories are only partial and focus on the few very important sites. As a result, we are confronted with a second limiting factor: the lack of a legislation that provides a protection and ditto protecting measures and actions for smaller and less spectacular geosites. In turn, the present situation is characterized by a fragmentation of official recognition of landscape values and small scale projects. The success rate of the latter is limited due to a lack of support and reputation. Therefore, the projects that have been implemented and that are very interesting in terms of pilot projects, e.g. the Geosite of Goudberg ('Gold Mountain') in Flanders and the disclosure of different mine sites, such as the marble quarry of Beauchateau in Wallonia, do not reflect their real value from an earth science and from a tourism perspective.

The research revealed also a tendency towards a different interpretation among the regions Flanders and Wallonia, since the landscapes differ considerably as well as population

¹ The inventory of Dejonghe et al. (2009) represents an interesting attempt but it is not complete.

densities which results in more possibilities for a narrow geotourism approach (focusing on the geological and geomorphologic aspects only) in Wallonia. As such, this does not need to cause a problem since Flanders and Wallonia are independent in deciding if and how to valorise their landscape in a tourism perspective. For sure, tourism stakeholders from the supply side in Flanders as well as in Wallonia agree on two elements (1) geotourism is an interesting niche within the total tourism product and (2) the holistic approach with a combination of culture, nature and geo-values is the most interesting basis for a geotourism product.

From a policy angle, the development of walking and cycling trails within natural landscapes was very much stressed as well as qualitative information and visitors centres but the difference between geotourism and eco-tourism or rural tourism was not a major concern. Therefore information centres are mostly seen as a starting place for those trails or routes, offering information on the region and the landscape without going in-depth in the origin of the geo-values. The major interpretation materials therefore stay quite traditional with info panels, brochures, touristic guide books and guided tours that are the most 'specialized' kind of valorisation one can get. Modern tools such as interactive media are far less seen as tools that can't be missing. Especially actors from the tourism supply side signal that, in the near future, this should change.

Scientists are very much aware of the geo-values and of their vulnerability as well. Therefore, protection is their first concern. Some even distrust tourism developers since they fear a misuse or overuse and finally a destruction of the natural resources. On the other hand, they have a limited insight into the needs and expectations of present day visitors and tourists. They are seldom aware of the changes from a mass tourism into a experience tourism that opens new alliances between producers and consumers of (geo)tourism products.

In summary, from our research we detected a number of elements that are important to take into account if one aims at stimulating geotourism development:

Table 1: Elements for a geotourism development framework (from the Belgian experience)

	Main elements influencing the valorization of geo-values
Definition	Niche market BUT part of the total tourism product Holistic: nature + culture
Criteria	Esthetics & Conservation Awareness & Education Multidisciplinary collaboration
Interpretation	Thematic Simple (story telling), not simplistic Interpretation tool: traditional & new
Disclosure	Natural landscape (relief, pedological profiles, fauna & flora,...) Cultural heritage (use of stones; regional products) Mining sites (quarries, caves...) Geological objects (rock formations, caves, springs,...) Walking and cycling tracks Supporting infrastructure (horeca, visitor centers...)

Conclusion

Geotourism has the potential to be an innovative niche within the existing tourism offer, even in a region or country like Belgium, not being endowed with spectacular landscapes or geo-values. The main condition to achieve that goal is to work on the concept's reputation and awareness of the integration of conservation, education, aesthetics and local development. We could detect a field of tension between stakeholders who defend a narrow approach, based on a narrow definition of the concept and those who have a broader and almost holistic approach. The Belgian case illustrates that this is not just a matter of definition but also a matter of interests. It is clear that the narrow definition translates the interests of the earth sciences and the scientific world much more than the broad definition which recognizes the impact and role of other stakeholders.

Looking at natural landscapes and geo-values from a tourism sector perspective, it is clear that one sees geotourism rather as a part of a broader product and as a way of expanding the existing offer. The full range of resources, not only limited to geological or geomorphologic aspects, is showcased with the esthetical value as a first element of attraction and the education aspect as a second core element. Although this is in line with the original focus of geotourism, the danger of a simplistic and adulterated message is real as well as a phasing out of its particular characteristics but sets it apart from eco-tourism and rural tourism.

Further, in areas with less spectacular landscapes and natural resources such as Belgium (and the region of Flanders in particular), the tourism sector itself doubts about the tourism potential which explains its passive attitude in that respect. Therefore, geo-scientists have a huge responsibility since the first step, which is the inventory of potential geo-sites, has to be made by them. Furthermore, this inventory has to include the visibility and attractiveness for the general public. Finally, scientists have to recognize the expertise of the tourism sector and have to put aside their distrust based on fear for overuse and misuse. Natural resources are not a tourism product yet; disclosure and accessibility with the introduction of well planned and managed infrastructure are inevitable. In that respects scientists (in geosciences) should trust and collaborate with scientists (in tourism) since tourism, as a scientific discipline, has developed a number of models for sustainable site and destination development for natural as well as cultural heritage (e.g. du Cros, 2001, Mc Kercher & Ho, 2006; Jansen-Verbeke, 2007). Methods for involving local communities are developed via participative techniques and have been tested, implemented and monitored (George et al., 2009; Vanneste & Ryckaert, 2012) as to assure the disclosure of geo-sites in a consistent and responsible way.

We experienced that the development of a geotourism product in Belgium (and especially in the flat region of Flanders) was closely related to the creation and expansion of walking and cycling trails. This is interesting since the development of trails and routes is promoted as a tool to link sites that, separately, generate (too) little attractiveness but constitute an interesting product when combined and promoted together (Timothy & Boyd, 2015). Doing so can solve the problem of a fragmented and provides overpriced management and a more coherent planning while motivating locals –as volunteers- to participate in this development and management process, and promoting them to ambassadors for the geo-values.

Therefore, from our research, we have four important recommendations for geotourism development in Belgium (and comparable regions and countries) that can foster the role of geotourism as an innovative tourism niche in 'ordinary' landscapes:

- (1) Integrate geotourism in the existing tourism offer but, with respect for its specific characteristics (earth science based) and vocation (education);
- (2) Since geotourism allows a holistic approach; this is by taking into account cultural elements as well (the cultural landscape approach); this approach is recommended in case of less spectacular natural resources; it broadens the tourism product content but, with respect for its specific characteristics (based on geo-values) and vocation (understand and preserve natural landscapes);

(3) Remove fields of tension between stakeholders as a result of different interpretations of the concept, softening the impact of different interests and disturbing factors;

(4) Respect the different development stages (model), applicable to any destination development and use, if possible, participative approaches in the process (locals as awareness ambassadors) and trails or routes as a tool (increase the complexity of the product by integrating different geo-sites).

Annex 1: Protocol themes and interviewees

	National/regional level	Sub-regional/ local level - Flanders Hageland - Circuit	Sub-regional/ local level – Wallonia Han-sur-Lesse
Tourism	-P. Diriken, author of 39 geo-guidebooks 'Georeto-Geogidsen'	-Tourism (Municip.) Hoegaarden -Tourism (Province) Flemish Brabant	-Domaine des Grottes de Han (Private) -Maison du tourisme Val de Lesse (Public Agency of the Valley of the river Lesse)
Science/ policy	-Belgian Geological Service -Contact Forum 'Geo-heritage, Geo-conservation, Geotourism', Brussels, Royal Fl. Acad. of B. for Science & Arts -Flemish Agency Immovable Heritage	-Regional Landscape Zuid-Hageland (semi-public) -Regional Landscape Noord-Hageland (semi-public)	-Université de Liège -Université de Namur

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