



The Role of the Picturesque in Geotourism and Iconic Geotourist Landscapes

Dagmara Chylińska¹

Received: 28 June 2017 / Accepted: 18 May 2018 / Published online: 29 May 2018
© The Author(s) 2018

Abstract

Geotourism can be defined as visits to locations that fall within the “geoheritage” category, whether natural or man-made. This underscores all the definitions of this phenomenon in the literature. The notions of the role and agency of typical geotourist motivations are much discussed in the definition of geotourism (i.e., cognitive orientation aimed at acquiring or expanding knowledge of geoscience, the history of Earth and geomorphological processes, and the like). Among the conceptual approaches in the field are those that emphasize more the final cognitive results of travel to geosites (in the form of the acquisition of knowledge on geoheritage by tourists) than the potential initial geotourist motivations of tourists. This article considers the picturesque esthetic of a landscape as the sole, main, or an important pull factor for geotourism and even whether this esthetic is necessary to transform a geosite into a tourist attraction. The picturesqueness of a landscape has varying importance for different categories of geotourists, from “unaware geotourists” to “geoexperts.” The iconic role of geotourist landscapes is illustrated by the Cretaceous landscape of the north-coast cliffs of Rügen (Germany), the rauks of Gotland and Fårö (Sweden), and the Trotternish Ridge with the Old Man of Storr on the Isle of Skye (Scotland).

Keywords Picturesque · Geotourism · Geotourist landscapes · Rügen · Gotland · Fårö · Skye

The concept of “geotourism” is well established in tourism science, as evidenced by the numerous scientific and mass-market works published internationally each year. Ever more destinations are being classified as geosites, and this growing interest in geotourism has led to the establishment of geoparks and the consideration of their role in tourism studies, nature conservation, sustainable development, and global geoconservation initiatives (UNESCO, 2016).

Those authors who address geotourism define it in a fundamentally similar way.¹ The protection and interpretation of geoheritage as well as questions related to ownership, sharing, and management are widely discussed and publicized (mainly through geoparks, see: (Burek & Prosser, 2008; Errami et al., 2015; Farsani et al., 2012)), reflecting the practical aspects of

geotourism. It is precisely these practical/applied aspects that have dominated the contemporary literature on the subject, leaving theoretical considerations (it would appear) slightly behind.

The subject of this paper is the concept of picturesqueness of landscape in relation to the phenomenon of geotourism. I will attempt to answer the question of the extent to which this deeply humanistic and subjective feature of the landscape, treated variously as a view, a characteristic frame, or as the physiognomy of the geographical environment, is the sole, principal, or major pull factor for geotourism or a necessary condition to transform a geosite into a tourist attraction. The paper reviews case studies on motivations for visiting geosites to determine if and how this form of cognitive travel is actually “unique” and different in this respect from other forms of tourism. I further endeavor to link geotourism with classical tourism concepts, understood as a phenomenon based on visual experience, and developed at the interface between social sciences, cultural sciences, and environmental psychology. In order to illustrate the iconographic role that landscapes play in widely meant culture and in geotourism, I have employed selected examples of places to illustrate the subject matter discussed.

¹ It should be stressed, however, that there is no single widely accepted definition of geotourism. The major research challenges of geotourism are defined by Dowling and Newsome (Dowling & Newsome, 2005).

✉ Dagmara Chylińska
dagmara.chylinska@uwr.edu.pl

¹ Institute of Geography and Regional Development, University of Wrocław, Pl. Uniwersytecki 1, 50-137 Wrocław, Poland

Picturesqueness of Landscapes: the Picturesque and the Painterly

The picturesque and the sublime are two modern esthetic categories, which emerged from eighteenth-century English landscape esthetics. They dominated how nature was conceived of and perceived at that time. The “sublime,” according to observations by Edmund Burke explained in his *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* published in 1757, is strongly associated with some specific landscape visual features and humans’ response to them in terms of a sense of astonishment, fear, pain, or acknowledging some landscapes as rough and obscure (Hose, 2010). In a sense, the fear reflects here a special kind of awe and this comes from confronting people with something more powerful than themselves (Bedell, 2001). Thus, the sense of sublime might be a source for the picturesque of landscapes. Moreover, the notion of a picturesque landscape is strictly related to paintings ((Burwick, 2015), p. 207) and is more focused on the natural composition of a view, its harmony, as well as on colors, textures, and the interplay of light and shade over specific landscape elements. As Frydryczak writes (Frydryczak, 2013), it was from a fascination with painting landscapes that wider interest in the natural landscape was born and it was the development of esthetic interests that gave rise to the development of landscape painting.² Picturesque as an esthetic category establishes a “picture-rooted” perception of the world, which inspires and also finds expression in poetry, painting, and art. A new sensitivity emerged among observers, which was orientated not only towards the original, the individual, and the natural but also towards the wild, the unobtrusive, and the menacing. The beauty of nature began to be forfeited over beauty of art; marveling at nature was also accompanied by reflections on the sublime, spontaneity, and genius of nature (Frydryczak, 2013). Moreover, picturesque landscapes at this time were concerned not only with beauty but also with highlighting the dramaturgy of nature: its unusualness, severity, variability, and dynamic ways—anything to stimulate the imagination.

As it can be seen, the picturesque is not an easy concept to define unequivocally. At the time when the picturesque first shaped the sensitivity of nature observers (the first view seekers, those whose emotions were stirred by scenery, true “landscape lovers”), it was understood either through the prism of Claude Lorrain’s paintings, which presented harmonious

nature, permeated with seriousness and serenity, subordinate to humans. Or, it was understood via the work of Salvator Rosa, in whose paintings nature was above all else spontaneous, unpredictable, and full of uncontrollable elements. Subsequently, the Romantics discovered in natural landscapes the potential to express the sublime. The distant observer of the scenic views of the eighteenth century was replaced by a person no longer separated from the fascination of nature, whose vivacity and vitality can devour them at any moment.

In sum, observing the picturesque of landscapes means much more than observing simply the beauty. Gilpin wrote in (Gilpin, 1792) (p. 47) that “every admirer of picturesque beauty is an admirer also of the beauty of virtue” and he explained extensively the difference between “picturesque” and “beauty” and the relationship between “picturesque” and “sublime.”

The picturesque means also searching for cultural connections between a view and history, religion, literature, visual arts, or any other products of culture. It refers not only to esthetic values but also philosophical, symbolic, and metaphorical ones as well.

Consequently, there are several approaches to describing the notion of picturesque. The words of William Mason will perhaps suffice: “picturesque means pleasing to the eye, it is remarkable because of its uniqueness, it is as impressive as a painting, it can be presented in the form of a picture, it presents a good theme for painting, and finally, it is a landscape worth painting” ((Frydryczak, 2013), p. 100).

Geotourism and the Notion of the Picturesque in Landscape

When describing any form of tourism,³ the question is whether we define the phenomenon based on the characteristics of the visited destination or the motivations that drives travelers to undertake the journey. In the first case, we characterize as geotourism any journey, the aim of which is to witness the artifact, place, or region included in the category of geoheritage,⁴ illustrating the often groundbreaking events in the history of the Earth or selected geomorphological

³ See disputes concerning the definition of cultural tourism and culture as an object of its interest (e.g., (Richards, 1996)).

⁴ It is worth noting that in the case of geotourism, the tourist attraction can be both specific, unique phenomena of an inanimate nature as well as the most typical phenomena which clearly and legibly illustrate selected geomorphological processes specific to a given region or of high educational value. Here, geoheritage is not confined to natural objects or processes; it also includes cultural artifacts whose nature is natural but whose form is the result of human activity (see (Gorman, 2007), p. 7 and Fig. 2 therein). The subject of geotourist interest might be also: the life, work, publications, notes, artwork, personal and museum collections, commemorations, etc., which are related to famous Earth scientists or some honored geo-passionate persons (see (Hose, 2011)). These cultural artifacts are included in so called “secondary geosites.” The idea of primary and secondary geosites is clearly explained in numerous works by Hose (see for instance (Hose, 2016b), p. 6).

² In the UK, landscape painting began in the late eighteenth century inspired by Salvator Rosa and Claude Lorrain. Landscapes such as the Lake District, the Wye Valley, the West Country, and some parts of Scotland came to be perceived with the same respect that had been granted to the Continental Alps before them (Andrews, 1987). “Pictures” that is painting the landscape as seen was facilitated for tourists by a special device, the so-called Claude glass, which allowed for the composition of scenic views as reflected in an oval mirror. For these first tourists, the source of their delight was not only nature itself but a self-constructed, stylized image of it (Byerly, 1996).

processes, and recognized and often referred to directly as a “geosite.” In the second (not necessarily mutually exclusive) conceptual approach, geotourism is defined more by the motivation (and the type and strength of motivation) for travel rather than simply the geological or geomorphological nature of the destination. This category covers the travel of tourists which is undertaken to get to know geoheritage and to acquire, expand, or even specialize in knowledge about it. The nature of motivation usually determines the specificity of the destination; so, many geotourism authors combine the two conceptual categories into a single definition (see the review of definitions in Newsome and Dowling (Dowling & Newsome, 2010), p. 3 and (Migoń, 2012a), pp. 12–14). Among the most frequently cited motivations for travel are the desire not only to know, understand, and gather knowledge but also to *admire* geosites and their monumental, dramatic, or simply beautiful landscapes. Hence according to Joyce (Joyce, 2006): “People are going to a place *to look at* and learn about one or more aspects of geology and geomorphology.” The same opinion in terms of the motivations of mostly general tourists who visit geosites is shared by Migoń (Migoń, 2010; Migoń, 2012b): “The beauty of many geomorphological landscapes has long been recognized, starting from travelogues of ancient travelers and scientists. Today, many such landscapes, if easily accessible, are top tourist destinations, accommodating millions of visitors annually. They come to see a scenery, which in their eyes have outstanding universal value” (2010, p. 11).⁵ At the same time, “professionals” (those who possess professional geoscience training or those familiar with the terminology of Earth sciences⁶) can visit geosites alongside hobbyists, people who love cognitive tourism, but do not have specialist awareness, and even completely casual visitors, those who end up at geosites “without meaning to” often without any substantive preparation⁷ (Migoń, 2012a), p. 15). A similar distinction is made by a number of other authors; for example, Hose (Hose, 2000; Hose, 2007) differentiates between “dedicated geotourists” and “casual geotourists”; Božić and Tomić (Božić & Tomić, 2015) and use the terms “pure geotourists” and “general geotourists,” defined on the basis of the strength and importance of their motivation for geotourism; and Grant (Grant, 2010) places geotourists on a scale between two extremes, from those with no preparation at all (the so-called “unaware visitors”) to those with a high degree of technical knowledge and interest in geoenvironmental geology (all authors

here cited after (Różycka & Migoń, 2017)). In his later works, Hose (Hose, 2016b) proposes a more complex typology. He divides geotourists according to intellectual engagement, social involvement, and physical activity. On these criteria, several categories are distinguished: active disengaged, casual inactive, and dedicated group.

Taking into account the possible differences of visitors’ motivations, the strength and agency of the cognitive motive, and the tourists’ preparation for self-interpretation of a geosite, the picturesque in the geotourist landscape⁸ contains a different meaning each time. For “purposeful” and highly qualified “dedicated” geotourists (“geoexperts”), the landscape *per se* and its picturesque qualities (e.g., beauty, mystery, grandeur, and visual composition) are not of great importance; it is at most an added bonus to visiting a valuable or unique geosite. However, it can be assumed that this feature may facilitate the selection between two sites of equal geotourist value. The picturesqueness of the site is of greater importance in the case of two further groups of tourists visiting geosites: dedicated people, but without substantial preparation to be able to interpret the geoheritage and people who select the geotourist destination as one among many, not necessarily the most important tourist attraction visited during a trip. In the first case, the presence of the picturesque, the monumental, and a vast, panoramic view facilitates the interpretation of the geosite,⁹ confirms the power of nature, and determines its place in the human world (and humans in the world of nature itself); in the second case, it provides meaning and often determines the wider satisfaction with the trip.¹⁰ For a tourist exhausted by the difficulty of reaching geosites, especially where there exists an undefined internal/intrinsic motivation, a beautiful, surprising view becomes a kind of satisfaction. Any travel which is crowned with a “wow!” is the quintessential tourist experience.

The picturesque aspect of the geotourist landscape is also gaining importance in the light of research conducted on the motivation of tourists participating in geotourism.¹¹ Although the studies were all conducted individually and focused on certain geosites, they shed some light on the nature of the

⁵ However, Schwarz and Migoń (Schwarz & Migoń, 2017) strongly claim there and subsequently that “Geotourism is much more than just looking at landscapes.”

⁶ These two categories of “real” geotourists make geotourism at least part of so-called special-interest tourism (see (Hall & Weiler, 1992)).

⁷ This characterization resembles popular typologies of cultural tourists, also most often grouped on the basis of the type, power, and agency of cultural motivation and the nature of activities undertaken during travel (see (McKercher, 2002; McKercher & Du Cros, 2003; Nahrstedt, 2000; Silberberg, 1995; Stebbins, 1996)).

⁸ I understand the term “geotourist landscape” as a landscape which consists of places labeled as geosites or a landscape, which clearly illustrates natural or anthropogenic phenomena valuable in terms of understanding the history of Earth (e.g., geomorphologic landscapes) or the geographical foundations of human activities. These landscapes might have both natural or cultural characters.

⁹ The scale of the landscape with a wide panorama often features large-scale processes, whose interpretation is not possible at a microscale. Landscape as a useful tool of interpretation is of great significance especially in geomorphology. This determines, according to Migoń and Pijet-Migoń (Migoń & Pijet-Migoń, 2017), the necessity for the distinction and clear and unequivocal description of a new category geosites, so called viewpoint geosites.

¹⁰ This then creates positive feelings, a reaction to other geosites (or geoheritage in general), which may in turn become the motivation for further, more purposeful geotourism.

¹¹ This by definition includes all those visiting a geosite.

needs of modern geotourists. Allan (Allan, 2011), having analyzed surveys conducted at Crystal Cave at Yanchep National Park in Western Australia (also (Allan et al., 2015)), the Pinnacles Desert in Western Australia, and Wadi Rum in Jordan, indicates that the most common motives for visitors engaging in geotourism¹² are as follows: an escape from the routine of daily living, leisure, fun, sense of wonder, and cognitive goals. The author does not specify whether the cognitive motivations indicated by respondents are general in nature, or whether they are strictly geared to gaining knowledge of Earth sciences. Similar observations can be seen in King's work ((King, 2010), p. 115) concerning tourists visiting the most famous volcanic attractions of Hawaii. Their iconic scenery attracts a rather specific group of geotourists: honeymooners who buy helicopter or plane trips to enjoy a romantic bird's-eye view of the volcanoes or engaged couples who choose to marry in the fairy-tale volcanic caves. Among the tourists who visited the Hwanseon Cave in Samcheok City, South Korea, Kim et al. (Kim et al., 2008) identify four key categories which differ from each other according to their travel motivations: (1) escape-seeking group (seeking to escape from their daily routine or lifestyle); (2) knowledge and novelty seeking group; (3) novelty seeking group; and (4) socialization group. Similarly, the main motivations for geotourists visiting Hong Kong Global Geopark in China are the following: novelty seeking,¹³ social interaction, enjoyment, or escape (Cheung, 2016). Geopark visits can also go beyond typical cognitive motivations and be part of a more or less traditional nature-based leisure: "enjoyment" is also cited by Cheung's (Cheung, 2016) study, as are picnicking and hiking. The cited research demonstrates that the motivations for the general, non-dedicated geotourist generally coincide with dominant tourist motives identified for other types of tourism. This means that geosites need to compete with other offerings for the tourist market. At first glance, this suggests that their picturesqueness can become their most readily visible pull factor for general tourists.

In attempting to define geotourism, some authors express the concept in isolation from the primary motivations of tourists, focusing on the tasks that this form of tourism is supposed to fulfill relative to geoheritage and ultimately on the tourists themselves, the beneficiaries of geotourism (issues such as geoconservation and geoeducation). In other words, regardless of what motivates the visitor to travel to the geosite, by interesting interpretation, the tour operator or geosite manager is able to create a genuine "geotourist" by the end of the visit. In

this way, geotourism can be thought of as something conceived: it is not the tourist that creates it, but it is the geotourism itself that creates a geotourist (if not all geotourists, at least the majority of them, mostly non-dedicated, casual).

The "interpretation," treated as kind of entry to the successful geosite management for the tourism market, might be understood as usage of specific informative tools, which are appropriate for the particular audience for which they are intended and which are scientifically correct as well. However, this is a very simplified approach to the problem of geosite interpretation. According to Hose (Hose, 2005a) "geotourism has marked societal value, for geology contextualizes issues of self and place within the cosmos, together with pressing present day issues such as global climate change and finite resources management." Interpretation is described as "the art of explaining the meaning and significance of sites visited by the public" ((Badman, 1994), p. 429, quoted in (Hose, 2011)). The term "art" underlines the complexity of the task. The interpretation encompasses not only on-site interpretative provision but also off-site provision. The main objective for interpretation is assisting visitors to appreciate site significance, aiding in the site management, and promoting understanding of the site agency's policies. It should not be limited to short-term knowledge acquisition ((Hose, 2005b), p. 224, (Hose, 2012)). The problem of effective (or "proper") interpretation is widely discussed in a large body of literature. For example, Hughes and Ballantyne (Hughes & Ballantyne, 2010) put forward a detailed framework to make interpretation successful: to set out and consequently realize an interpretative plan, define a target audience and uniqueness of a place, and recognize external and internal conditions for the interpretation. As the interpretation means "telling a story," it is equally important to culturally contextualize a site, to use analogues, metaphor, and humor, to encourage visitors to actively participate, and finally to evoke emotions, not only an understanding. This quite technical instruction of interpretation of geosites might be developed using the concept of "discovering a sense of wonder" (Gordon, 2012). It lets us go beyond the traditional didactic approach to interpretation and provides opportunities for developing more creative ways for people to engage with and appreciate geodiversity through different cultural experiences. Searching for connections between natural landscapes and culture might offer the same satisfying experiences for casual geotourists as collecting rocks, measuring particular geomorphological features or looking at geological structures for dedicated geotourists. Evoking the words of Ham (Ham, 2007), Gordon (Gordon, 2012) sees interpretation as an intellectual provocation, not an instruction; he proposes a more holistic view on geoheritage interpretation that includes links to cultural heritage.

Returning to the problems with defining geotourism, it is noticeable that geotourism reflects the intentions (e.g., of the managers of geoheritage and those in academic circles

¹² Among them: casual geotourists (non-dedicated) and dedicated (pure) geotourists. As research on motivations revealed (e.g., (Allan, 2011; Allan et al., 2015; Cheung, 2016; Kim et al., 2008; King, 2010)), the first group of all people visiting geosites is the majority of geotourists.

¹³ Where search for novelty can be understood not only as a search for new or different experiences to standard everyday life but also simply the desire to visit a newly opened tourist attraction.

interested in its dissemination) and is not (for the most part) a response to them (for example, the general public). This situation is reminiscent of the classic chicken-and-egg dilemma. Is geotourism a response to the demand for geotourism products, or is it the manufacturer and supplier of geotourism products who creates or initiates and maintains the demand? Or maybe it is a combination of both? Hose (Hose, 2012) lists the main keywords of contemporary geotourism as: (1) geoconservation, (2) geohistory¹⁴, and (3) geointerpretation. All of these terms might be simultaneously understood as the benefits from geotourism for tourists, geoheritage in general, and all institutions and persons involved. Schwarz and Migoń (Schwarz & Migoń, 2017), citing Millán Escriche (Millán Escriche, 2011), explain that “the major difference between geotourism and other forms of tourism is precisely its educational function: to teach, to instruct and to explain clearly the repertoire of georesources in different sites.” While this statement might be debatable (there are plenty of forms of tourism, especially cultural tourism, which play a mostly educational, cognitive role), from a practical point of view (considering the wide educational tools and practices used in geotourism), it appears to be true.

The second conceptual approach described above finds a particular justification in the context of the research on the primary motivations of visitors to geosites, although they tend to have a case-study-like character as they reveal the small percentage of tourists who have visited geotourist attractions deliberately and with full awareness of the site’s educational value in expanding our understanding of Earth’s history and of the processes shaping its surface.

Relating back to the importance of the picturesque in geotourism, Newsome and Dowling ((Dowling & Newsome, 2010), p. 4), referring to the work of authors such as Hose (Hose, 1995; Hose, 2000; Hose, 2008), Joyce (Joyce, 2006), and others, suggest an understanding of geotourism as follows:

“(…) a form of natural area tourism that focuses on geology and landscape. It promotes tourism to geosites and the conservation of geo-diversity and an understanding of earth sciences through appreciation and learning. This is achieved in independent visits to geological features, use of geo-trails and viewpoints, guided tours, geo-activities and patronage of geosite visitors centers.”

In addition to the undoubtedly cognitive motivation of the tourist, this approach emphasizes the usefulness of the “view” to satisfy this motivation, of genuine exposure, and through the articulation of cognitive values of the geosite. While in geotourism, cognitive qualities and motivations are undoubtedly of first-order importance (at least from the point of view of tour operators, suppliers of a particular tourism product and those

who commercialize geosites), the authors of the cited definition do not directly use the term “view” in reference to geoheritage nor do they valorize it in esthetic categories (such as “beautiful,” “scenic,” “dramatic,” or “monumental”) as visual impressions and the accompanying emotions inherent in geotourism.

In sum, geotourism is therefore a type of tourism which exists at the interface of cultural tourism (due to cognitive-cultural motives and the cultural character of parts of geosites), leisure tourism, adventure tourism, and ecotourism, whereas both by itself and within these forms, it occurs as so-called sustainable tourism (see (Słomka & Kicińska-Świdorska, 2004), cited after Newsome and Dowling (Dowling & Newsome, 2010), p. 3; (Kowalczyk, 2010; Osadczyk & Osadczyk, 2008), cited after (Migoń, 2012a), p. 13; (Dowling & Newsome, 2005), p. 6). The esthetic values linked not only to the physiognomy of particular geosites but also to the wider landscape appear in many valorizations of the attractiveness or usefulness of geosites for tourism (see (Knapik et al., 2009; Różycka & Migoń, 2017)).

The Iconic Role of Geotourist Landscapes

Contemporary tourism, like culture, is a phenomenon that is largely based on visual experience. “For the tourist of the twentieth century, the world is one big supermarket composed of landscapes and cities” (Schivelbusch, 1986). “Esthetic consumerism is the absorption of the world in images that usurp the position of reality” ((Frydryczak, 2013), p. 163). The importance of “seeing” and “gazing at” in tourism and tourism’s associations with photography—a fixed view that replaced the traditional painting and the drawing—appears in the work of many authors (e.g., (Sontag, 2009)), but above all in that of Urry (Urry, 2007). Urry (Urry, 1995) sees in tourism a special kind of “consumption of places” from the purely mechanical to the metaphorical and visual. Tourism produces and processes “sights” for its own use; moreover, it generates a visual representation of a place, a region, or a country through “views.” One particular sight or characteristic of the landscape of a given place becomes the embodiment of its “genius loci,” which is a metaphorical figure. On their travels, tourists literally collect visual representations of places—in the past it might have been postcards—“views” from the places they visit. Tourists choose these natural or constructed visual representations partly due to laziness, partly because they have to select a destination among the unbelievable number of tourist attractions available and these provided constructs are simply useful in that MacCannell (MacCannell, 2005) claims that tourist sites are “signs” that “something that gives something to someone”; so, it may be a prelude to a closer acquaintance, akin to an intellectual journey.

The picturesque of sights entails their mechanical and cultural reproduction: they appear in the private photos of

¹⁴ Means here “a systematic narrative of geological and geomorphological discoveries, events, personalities, and institutions” (Hose, 2012).

tourists, on postcards, in tourist catalogs, on websites, posted to photo sharing portals (such as Instagram), and are used in popular and social media, used by both the news and entertainment media and via entertainment providers (acting as locations for films). Intentionally or not, a view (an eye-catching frame) plays often a role of a tourist marker, employed in tourist destination management. According to the classical tourist attraction theory (MacCannell, 2005), a view constitutes a component equally important to create a tourist attraction as tourists who visit a sight and attractive attributes of a sight which attract people. Even more, as Terlouw (Terlouw, 2014) writes, landscapes are important elements of spatial identities¹⁵ and continues citing Daniels (Daniels, 1993): “as exemplars of moral order and aesthetic harmony, particular landscapes achieve the status of national icons.” Thus, not only iconic landscapes define a space but also they are also the basis for human (individual and collective) spatial identity.

The iconic role of landscapes might result from their natural beauty, sublimity, extensiveness, complexity, or mystery. A special meaning is given to places and landscapes of outstanding or critical events, bloody struggles, or associated with national heroes, personifying collective gains and dreams. Not only all kinds of visual arts but also more traditional cultural products, such as poetry and prose, help to sustain their presence in the collective (national, regional, or local) memory.

The picturesque of geotourist landscapes allows them to fulfill the above iconic, symbolic functions. It is also in many cases the beginning of tourism in general, followed by geotourism in selected places and regions (e.g., the Peak District or the Scottish Highlands, see: (Gordon & Baker, 2016; Hose, 2008)). The picturesque was first portrayed in literature and painting and then later in photography or film. This path is illustrated clearly in the history of geotourism in the English Lake District. The first tourists (especially artists and poets sensitive to beauty, esthetics, and values) visited this region in the eighteenth and nineteenth centuries mainly because of the landscapes, many of which were not only wild, ancient, and mysterious but also beautiful and romantic (Hose, 2010; Hose, 2016a; Hose, 2016b). The first geosite to be named literally and used commercially in the Lake District is the Bowder Stone (Fig. 1) (Hose, 2016a; Hose, 2016b). The Victorian painter John Atkinson Grimshaw immortalized this boulder in a picturesque setting in one of his paintings (the Bowder Stone,¹⁶ oil on canvas, circa 1863–1868). Celia Fiennes, a privileged late seventeenth-century horse-back



Fig. 1 The Bowder Stone today—from behind on the left, the famous ladder (2013), photo by author

traveler, who visited the Ashbourne copper mines in 1698, is considered to be the first recorded geotourist in England (Hose, 2016b).

The growing interest in geology in the eighteenth and nineteenth centuries, being part of the broader fascination of natural history of selected regions, encouraged people to discover and explain “wide” landscapes and later describe them in popular (such diaries, early geo-guidebooks) or scientific literature (see (Hose, 2010), pp. 16–24). The development of Earth sciences advanced equally with the progress of humanities. The most influential esthetic movement, Romanticism, changed peoples’ attitude to nature. The character of contemporary tourism and the tastes and motivations of early travelers were also shaped by the deep changes in societies, culture, and economy of the industrial époque. Growing in size and power, the eighteenth and nineteenth century middle class started to evince aspirations and imitate travel patterns typical (and available by then) for the aristocracy (Hose, 2012). Partly, some participants of the Grand Tour travels might be named as early geotourists as in the modern meaning of geotourism. As Hose (Hose, 2016b) writes, the Grand Tour tourists not only visited those European cities considered major centers of culture (e.g., Rome, Paris, and Venice) but also place with prominent geological and geomorphological phenomena: (e.g., Mount Vesuvius, Etna, the Rhone Valley, and the Alps). Landscape appreciation was initially a minor, even ignored, element of the Tour, but it grew in significance over time. Generally, the beginning of geotourism might be attributed to the Romantic époque (although some of its indications had occurred earlier), not only in Great Britain but also in other regions of Europe and the world as well, and it was strongly connected with academics’ and artists’ communities. Eugene von Guérard, the Austrian born landscape painter, traveled, painted, described, and finally popularized the volcanic regions and gold fields of the Australian New World (Pullin, 2016). Johann Wolfgang Goethe due to his travel to the Sudetes, among them the Stołowe Mountains, had a

¹⁵ For more on this issue, see Robertson and Richards (Robertson & Richards, 2003), pp. 121–140.

¹⁶ The modern open landscape in which the boulder is located has lost some of its beauty (looking at it from a distance), as its most important accent—the Bowder Stone—is today overshadowed by trees. Nevertheless, the Bowder Stone itself creates a picturesque landscape.

passionate interest in geology and was the first known geotourist in this area (Migoń, 2016). Writers like Michael J. Quin, Andrew Archibald Paton, and Siegfried Kapper shared the same enthusiasm for loess landscapes observed during travels along the Danube river (North Serbia) (Vasiljević et al., 2016).

In subsequent eighteenth and nineteenth century post-travel publications, which could be used as tourist guidebooks (see (Hose, 2010; Hose, 2016a; Hose, 2016b)), the vivid descriptions of the sights complemented ever more detailed information about the geology and the geological past and of the areas visited. Numerous stories from journeys describing visits to places nowadays recognized as geoheritage locations did not put forward only facts—they contained lots of cultural associations, reflections, or even straight references to “the picturesque” term. The best example of this is the work by Gilpin (Gilpin, 1782) *Observations on the River Wye, and several parts of South Wales, ...*. The author described the landscapes according to their context, composition, harmony, beauty, color, texture, and ephemeral visual effects, not only the subjects of tourist gazing themselves. Thomas West promoted the Lake District’s principal locations, sights, and so called stations (places to admire scenic views) in his *A Guide to the Lakes...*, published (West, 1778) and the picturesque aesthetics as well (Hose, 2016b). Picturesque-focused tourist gaze was reflected and simultaneously initialized, by famous literature (e.g., by John Keats, William Wordsworth, Samuel Taylor Coleridge, Robert Southey, and Emily Brönte in the UK) and similarly in other regions of Europe (e.g., in Poland, Wincenty Pol, Kazimierz Przerwa-Tetmajer, and Leopold Staff all devoted their works to the Tatra Mountains). Picturesque descriptions of geomorphological and geological phenomena of specific regions found in fictional novels and poems might be used as geotourist guidebooks, even now, many years after their creation. Some works by the Polish writer, Stefan Żeromski, played a similar role, especially his essay entitled *Puszcza jodłowa (The firry backwoods)*, published in (Żeromski, 1925). It documents the ancient landscape of the Holy Cross Mountains (Polish “Góry Świętokrzyskie,” central-southern Poland), covered by block fields, and the author’s emotional attitude towards it. The relations between the literary work of Stefan Żeromski and local geology of the Holy Cross Mountains are broadly analyzed by Ożóg (Ożóg, 1988).

Romantic gaze at nature and its geographical phenomena, focused on the selected “views” and their cultural contexts, has not passed away with the Romantics—it is still present in many current cultural trends (such as Photo-realism, Neo-Romanticism, and Ruralism in Great Britain, see (Hose, 2012)) and contemporary tourism as well (e.g., film-induced tourism).

Although landscape/scenic tourism based significantly on geotouristically attractive places is linked mainly with

Romanticism, some of its indications were evidenced in history much more earlier. For instance, Ancker and Jungerius (van den Ancker & Jungerius, 2016) write about numerous and frequent visits of people near Haarlem at the Dutch seaside in the early seventeenth century to admire the coastal landscape with dunes. These travels linking landscape appreciation with recreation were immortalized in the paintings by, for example, Esaias van der Velde.

What attracts today’s tourists is also in many cases, the recognizability of the sight and subsequently its cognitive qualities.¹⁷ MacCannell (MacCannell, 2005) even cited criticisms of modern tourists as “they convert perception into ordinary recognition.” The recognition of the sight can be defined not only as a simple knowledge of it through its physical occurrence in everyday human experience but also more broadly as a reference to broader associations with many other cultural phenomena (e.g., events, figures, literature, image, film, and anecdote). The picturesque of the sight and of the photograph (or other visual tool such as poster, film, and video clip) that uses it is responsible for creating and sustaining popular impressions about the place. The classic examples of this phenomenon are the Grand Canyon of Colorado, Uluru in Australia, the majestic buttes of Monument Valley¹⁸ in Utah/Arizona, Wadi Rum in Jordan, the White Cliffs of Dover (Fig. 2), and the Chinese mountains of Huangshan. The scenery of the granite rocks of the Huangshan massif within dwarf pine forests is one of the oldest and most popular motifs of Chinese landscape painting. The White Cliffs of Dover are the “gateway” to Great Britain, the symbolic and physical boundary of a specific category, that of the quintessence of “islandness,” the sign of endurance and resistance to the external world. Famous, majestic buttes and monoliths have become a visual representation of the American Wild West or the Australian Outback and of their values and traditional lifestyles. They have been used in many films, westerns, and road movies, where they were often not just a backdrop for the plot, but “the character” of the story itself.¹⁹ A similar role is played by geotourist landscapes on a somewhat smaller scale, described later in the article in the example of selected coastal landscapes.

The Cliffs of Rügen

The picturesque/painterliness of the landscape of the Cretaceous coast of the German island of Rügen was

¹⁷ Roesch (Roesch, 2009) and others have written about this: a significant percentage of tourists choose to travel to places they see in movies or through images that are commonly found in pop culture. Visiting places seen in films is not only for film tourism but also for other forms of movie-induced tourism.

¹⁸ The landscape of rocky spires and towers of Monument Valley was popularized in the western films directed by John Ford.

¹⁹ The urban settings of Paris, London, or Barcelona served a similar function in Woody Allen’s films: “Vicky Cristina Barcelona” (2008), “Midnight in Paris” (2011), and “Lovers in Rome” (2012).



Fig. 2 The Cliffs of Dover, the “gateway” to Great Britain (2003), photo by author

developed and popularized in the eighteenth century by Caspar David Friedrich. The “Chalk Cliffs on Rügen”/“Krefeldfelsen auf Rügen,” created in 1818 (Fig. 3), presents a picturesque clearing in a chalk cliff, today located in the Jasmund National Park. The picture is one of the most popular and classic examples of romantic landscape painting. The island of Rügen with its natural (Cretaceous cliffs, Herthasee lake, and original beech forests) and cultural (megaliths, Cape Arkona with the “burgh,” and the cultural center of the Rani tribe) landscapes has been a mysterious land since the early nineteenth century, representing “true” Germanic values, which could appeal to the newly constituted nation. According to Schieb (Schieb, 2002), the young poet Ludwig Theobul Kosegarten established this myth in his poem “Ode to the Stubbenkammer,” for whom this monumental chalk formation became a kind of “altar” of the cult of the homeland.

Friedrich’s image of the natural “window” and its associated views from the upper part of the cliffs of the north coast of Rügen, the combination of greenery and scrublands, and the steel-gray waters of the Baltic Sea and the chalk-white walls has become a widely reproduced image in culture and tourism. The sight was also painted by Philipp Hackert, Carl Gustav Carus, Friedrich Schinkel, Carl Blechen, and Friedrich Preller Senior (Schieb, 2002). The scenery can still be admired from many viewpoints on the Rügen cliffs, the most popular being Königstuhl/Stubbenkammer, and Victoria Sicht. Referring to MacCannell’s classic theory ((MacCannell, 2005), pp. 68–71), in which tourism can lead to “sight sacralization”—whereby an object converts into a tourist attraction, it can be said that the Rügen Cliffs are already at the mechanical (or even social) stage of reproduction inasmuch as they have become a foundation of territorial identity.

The geotourist attractiveness of the rugged cliffs of Rügen derives from the legibility and relative ease of interpretation of the natural landscape. The high, steep coasts of the island are made from a thick layer of chalk (Fig. 4), where erosion and mass movements (i.e., landslides) are active. In the geological structure of northern Rügen, Quaternary deposits related to the



Fig. 3 “Kreidefelsen auf Rügen” (1818), Caspar David Friedrich. Oil on canvas. Source: Museum Oskar Reinhart, Inv. No. 165

Pleistocene glacial epoch (tills and meltwater sands) lie on top of the Permian-Mesozoic rocks. Visible on the walls of the cliffs are traces of flint, some of which has been washed onto the pebble beaches below (Borówka & Kwaśny, 2011). Jasmund National Park offers tourists many geotourist attractions and strives to ensure that they are properly interpreted, providing not only physical and visual infrastructure (e.g., hiking trails, bridges, footbridges, climbing stairs to the foot of the cliffs, and viewing platforms) but also richly illustrated information boards, directing tourists’ attention to the geological structures, landforms, and dominant geomorphological processes.

The Rauks of Gotland and Fårö

The fantastical shapes of the limestone rauks and klints of Gotland and Fårö create geotourist landscapes, which undoubtedly constitute a great tourist attraction for these Baltic islands. The rauks visible on the beaches (e.g., Langhammars on Fårö, Fig. 5) are Silurian reefs (Tuuling et al., 2011), which form the so-called Silurian klint. The recognizability of the characteristics of this Baltic landscape is due to its beauty, which has benefited many creators of visual arts, painting, and film. The Fårö rauks were featured in the films of Ingmar Bergman, among others, in “Through a Glass Darkly” (1961), “Persona” (1966), “Shame” (1968), and “Passion” (1969). The rough, angular clusters of limestone pillars in Fårö have been portrayed as presenting a metaphor for the difficult emotional states and life-forms of his protagonists. Gotland and Fårö also abound in a number of valuable and unique cultural attractions, such as the medieval



Fig. 4 View of the Rügen Cretaceous rocks from the Königstuhl lookout point (2015), photo by author

fortifications and ruins of Visby churches, prehistoric cemeteries and boat tombs, and the traditional agricultural and pastoral landscape. These attractions and the limestone rauks dominate the tourist perception of the islands. This image, which is an iconographic representation of the “typical” Gotland landscape, is promoted by the popular series of “coffee table books”: books and albums based mainly on photographs and drawings of the most valuable and most scenic local views (see (Edquist, 2005), p. 53). These books are primarily intended for the tourist market and can be purchased as travel souvenirs in tourist information centers, or simply be viewed in places such as hotels, guest houses, and inns, where they are normally laid out in prominent places.



Fig. 5 One of the rauks on Langhammars on Fårö being photographed by tourists (2010), photo by author

The Trotternish Escarpment, Isle of Skye

The basaltic pinnacles of the Trotternish Escarpment north of Portree, alongside the majestic Red Hills and glaciated mountains of the Black Cuillin, create the most geotouristically attractive and recognizable tourist destination in the natural landscape of the Isle of Skye (Figs. 6 and 7), which is the largest island of the Inner Hebrides in Scotland (Gillen, 2013). The road which runs along the coast towards the Old Man of Storr abounds in lay-bys that allow cars to pull over and tourists to stroll and admire the majestic, ancient landscape. Especially long perspectives of gazing create favorable condition to appreciate the picturesque of the rough, dramatic scenery. Moreover, it is the best opportunity to notice the large scale of a specific geomorphological process and its results, characteristic for this location. The Quiraing, Table, Needle, Prison, Dun Dubh, and the Old Man of Storr (the local names for particular topographic features produced by landslides) form the great edge of the Trotternish Ridge and document the biggest large-scale mass movements on the island (see (Ballantyne, 2007; Ballantyne, 2008; Ballantyne, 2016)). East of the escarpment is the most extensive area of landslipped terrain in Britain as a whole, occupying c. 40 km². It is divided into two sections: an outer zone of subdued, ice-molded landslide blocks that were over-ridden by the last ice sheet and an inner zone of tabular landslide blocks and pinnacles (Fig. 7) that represent rock-slope failure since deglaciation (which in this area occurred about 17,000 years ago) ((Ballantyne, 2008), p. 20 and Fig. 10 therein).

Palaeogene basalt lavas, now forming the high and sharp escarpment, were erupted onto Jurassic shales and clay-rich sedimentary rocks, which are much weaker than the basalt.²⁰ Some parts of the basaltic escarpment are detached from the main body of lava and have slipped on the softer sedimentary rocks beneath, forming the most distinctive landscape features (mostly the “cosmic-shaped” rocky pinnacles) near the east coast of Skye (Fig. 7) (Gillen, 2013).²¹ The whole process of landslipping occurred due to the nature of the underlying geology. In all likelihood, it was started even in the Tertiary ((Yoxon & Yoxon, 2005), p. 21) due to the formation of tectonic fractures (faulting) acting as slip surfaces, but it continued into the Holocene well after the last ice sheet melted.

The iconic role of the Trotternish landscape results strongly from its visual attributes, but also from history, tradition, myths (see: (Swire et al., 2006), and (Gordon, 2016)) and nowadays also from modern visual arts. The majestic basalt rock cliffs of the Trotternish Peninsula have been popularized

²⁰ More on geology and landscape of Skye in, e.g., Emeleus and Bell (Emeleus & Bell, 2005) and Gordon (Gordon, 2010).

²¹ Ballantyne (Ballantyne, 2008; Ballantyne, 2016) additionally notes that although failure of the scarp has traditionally been attributed to rotational sliding within the sedimentary rocks, the configuration of detached blocks suggests planar sliding or gliding of lavas over deforming shale.



Fig. 6 View of the Trotternish Ridge on Skye, with the Old Man of Storr on the right, partly covered by clouds (2013), photo by author

in the science-fiction film “Prometheus” (2012), directed by Ridley Scott, which is part of the prequel to “the Alien series.” It appears in the film as the surface of a distant planet where the protagonist of the story encounters a deadly form of life. The famous Old Man of Storr rock formation (Fig. 6) also appears in the opening scene of the 1973 film “The Wickerman.” The basalt escarpment of the Quiraing has appeared in the films “The Land That Time Forgot” (1975), “Stardust” (2007), “Snow White and the Huntsman” (2012), “Macbeth” (2015), “47Ronin” (2013), and “The BFG” (2016) (<https://www.visitscotland.com/blog/films/skye-film-locations/>, accessed 07.04.2017). This geotourist landscape is therefore strongly rooted in the popular culture of today. The Trotternish Ridge has cultural, symbolic, and even somewhat religious significance, analogous to the Stubenkammer on Rügen. In the distant past, a bloody ritual was practiced here, what was called at the time a “bull sleep” used for gaining knowledge of the future, as reported by eighteenth-century travelers to the



Fig. 7 Basaltic pinnacles of the Trotternish Ridge on the Isle of Skye and their “cosmic” landscape (2013), photo by author

Scottish mountains and islands ((Monaghan, 2004), p. 65). The significance of the scenic beauty and sublime character of the Trotternish landscape is evidenced by the wide body of guidebook literature, which defines visually the island through the dramatic views of basaltic pinnacles of the escarpment and the spectacular valleys and peaks of the Cuillin Hills. Moreover, Trotternish is also now listed by the Scottish Geodiversity Forum as one of the “Best Places to see Scotland’s Geology” (see: <http://www.scottishgeology.com/best-places/>. Accessed 9 April 2018). The project promotes Scotland’s geodiversity and encourages people (non-specialists) to explore, learn more about, and enjoy Scotland’s geoheritage.

Conclusions

The review of popular definitions of geotourism leads to the conclusion that geotourism is a phenomenon of visiting geosites in which more emphasis is put on the final effect of acquiring knowledge about geodiversity by tourists than on linking geotravel with initial geotourist (usually cognitive) motivations of tourists. Furthermore, the final knowledge acquired through interpretation (regarded as looking for and highlighting the connections between natural phenomena and culture, traditions, history, humanities, memories, and art) goes far beyond simple geological or geomorphological facts.

The role of the picturesque in geotourism is of great importance. As a complex category, equally visual and symbolic, it is deeply and instrumentally linked with the beginnings of early geotourism. Hose (Hose, 2016b) concludes this briefly: “the past really is the key to the present.” Numerous references to the picturesque esthetics and appreciation of nature’s beauty have been occurring in geo-travel stories through time, independently of whether their authors were ordinary people, geopassionates, artists, or scientists. This suggests that curiosity and looking for extraordinary esthetic experiences occur in geotourism equally frequently as in cultural tourism.

Referring to the core questions of the paper, to what extent the picturesque might be a decisive pull factor to attract people to geosites, it has to be underlined that there is a difference in its relevance in relation to casual/non-dedicated geotourists and pure/dedicated geotourists. Whereas the picturesque of geotourist landscapes, their cultural contexts and finally their recognizability might be the prime factors (each one itself or their combination) inducing non-dedicated geotourists to travel, for dedicated geotourists they play rather little role as an initial motivation. However, the sense of the significance of the picturesque within the latter group of geotourists might grow during the course of a visit due to interpretation which presents specific objects of nature and the particular sciences focused on them as phenomena deeply rooted (not isolated or being alongside) in culture (by simple presence in past and present human experiences or by use for different purposes as

well). The picturesqueness and recognizability of sights are not, of course, a substitute for cognitive values in geotourism but can be significant initial factors for attracting a much wider range of casual geotourists to iconic geosites and landscapes. They are important in terms of perceiving values, appreciation, and broader popularization of geoheritage and building the attitude of common acceptance for geoconservation issues as well. Appreciation is here substantial (especially for non-dedicated geotourists); finally, we all, as tourists, end up with making photos.

Finally, the picturesqueness of a sight and its recognizability in popular media or in travel promotions are vital tools for destination marketing and destination placement. Although this statement sounds like a truism, it is just as true for geotourism as for any other form of tourism. Moreover, the picturesqueness of geotourist landscapes and their esthetic qualities also draw attention to the usefulness of “landscape as well as” as a tool for interpretation of geoheritage (see (Migoń & Pijet-Migoń, 2017)). As interpretation is often only possible in a wider context, in conjunction with other landscape components, it seems that geotourist landscapes should be included in geotourism rather than single geosites in the landscape, especially for the majority, non-dedicated geotourists.

Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

References

- Allan M (2011) Toward a better understanding of motivations for a geotourism experience: a self-determination theory perspective. Available at: <http://ro.ecu.edu.au/theses/438> (accessed 25 March 2017)
- Allan M, Dowling RK, Sanders D (2015) The motivations for visiting geosites: the case of Crystal Cave, Western Australia. *GeoJournal of Tourism and Geosites* 16(2):141–152
- Andrews M (1987) The search for the picturesque: landscape, aesthetics and tourism in Britain. Scholar Press, Aldershot, pp 1760–1800
- Badman T (1994) Interpreting earth science sites for the public. In: O'Halloran D, Green C, Harvey M et al. (eds) *Geological and landscape conservation*. Geological Society, pp 429–432
- Ballantyne CK (2007) Trotternish escarpment, Isle of Skye, Highland. In: Cooper RG (ed) *Mass movements in Great Britain*. Geological conservation review, series no. 33. Joint Nature Conservation Committee, Peterborough, pp 196–204
- Ballantyne CK (2008) After the ice: Holocene geomorphic activity in the Scottish Highlands. *Scott Geogr J* 124(1):8–52
- Ballantyne CK (2016) Rock-slope failures on Skye. In: Ballantyne CK, Lowe JJ (eds) *The Quaternary of Skye*. Field guide. Quaternary Research Association, Cambridge, pp 77–88
- Bedell R (2001) *The anatomy of the nature: the geology and American landscape painting*. Princeton University Press, Princeton, pp 1825–1875
- Borówka B, Kwaśny M (2011) Walory przyrody nieożywionej niektórych wysp zachodniej części Morza Bałtyckiego. *Prz Geol* 59(6):463–480 (in Polish)
- Božić S, Tomić N (2015) Canyons and gorges as potential geotourism destinations in Serbia: comparative analysis from two perspectives—general geotourists' and pure geotourists'. *Open Geoscience* 7:531–546
- Burek CV, Prosser CD (2008) *The history of geoconservation*. The Geological Society, London, Special Publications, 300
- Burwick F (2015) *Romanticism: keywords*. John Wiley & Sons, Ltd, Chichester
- Byerly A (1996) The uses of landscape. The picturesque aesthetic and National Park System. In: Glotfelty C, Fromm H (eds) *The ecocriticism reader: landmarks in literary ecology*. University of Georgia Press, Athens, pp 52–68 Available at: <https://dspace.lafayette.edu/bitstream/handle/10385/1297/byerly-ecocriticismreader-1996.pdf?sequence=1> (accessed 24 March 2017)
- Cheung LTO (2016) The effect of geopark visitors' travel motivations on their willingness to pay for accredited geo-guided tours. *Geoheritage* 8:201–209
- Daniels S (1993) *Fields of vision: landscape imagery and national identity in England and the United States*. Polity, Oxford
- van den Ancker JAM, Jungerius PD (2016) Landscape and geotourism on the Dutch coast in the seventeenth century as depicted by landscape artists. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*. Geological society special publication 417. The Geological Society, London, pp 71–82
- Dowling RK, Newsome D (2005) Geotourism's issues and challenges. In: Dowling RK, Newsome D (eds) *Geotourism. Sustainability, impact, and management*. Elsevier Butterworth-Heinemann, Oxford, pp 247–254
- Dowling RK, Newsome D (2010) Setting an agenda for geotourism. In: Newsome D, Dowling RK (eds) *Geotourism. The tourism of geology and landscape*. Goodfellow Publishers, Oxford, pp 1–12
- Edquist S (2005) In the shadow of the Middle Ages? Tendencies in Gotland's history-writing, 1850–2010. In: Edquist S, Holmén J (eds) *Islands of identity. History-writing and identity formation in five island regions in the Baltic Sea*. Södertörnshögskola, Huddinge, pp 39–142
- Emeleus CH, Bell BR (2005) *British regional geology: the Palaeogene volcanic districts of Scotland*, 4th edn. British Geological Survey, Nottingham
- Errami E, Brocx M, Semeniuk V (2015) *From geoheritage to geoparks. Case studies from Africa and beyond*. Springer, Cham
- Farsani NT, Coelho COA, da Costa CMM, Neto de Carvalho C (2012) Geoparks and geotourism. New approaches to sustainability for the 21st century. Brown Walker Press, Boca Raton
- Frydryczak B (2013) *Krajobraz. Od estetyki the picturesque do doświadczenia topograficznego*. Wydawnictwo Poznańskiego Towarzystwa Przyjaciół Nauk, Poznań (in Polish)
- Gillen C (2013) *Geology and landscape of Scotland*, 2nd edn. Dunedin Academic Press, Albany
- Gilpin W (1782) *Observations on the River Wye, and several parts of South Wales, etc. relative chiefly to picturesque beauty; made in the summer of the year 1770*. R Blamire, London
- Gilpin W (1792) *Three essays: on picturesque beauty; on picturesque travel; and on sketching landscape: to which is added a poem, on landscape painting*. R Blamire, London
- Gordon JE (2010) Scottish landform example—41: the geological foundations and landscape evolution of Scotland. *Scott Geogr J* 126(1):41–62
- Gordon JE (2012) Rediscovering a sense of wonder: geoheritage, geotourism and cultural landscape experiences. *Geoheritage* 4:65–77

- Gordon JE (2016) Geoheritage, geotourism and landscape appreciation. In: Ballantyne CK, Lowe JJ (eds) *The Quaternary of Skye*. Field Guide. Quaternary Research Association, Cambridge, pp 184–191
- Gordon JE, Baker M (2016) Appreciating geology and the physical landscape in Scotland: from tourism of awe to experiential re-engagement. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*, Special Publications 417 edn. The Geological Society, London, pp 25–40
- Gorman C (2007) Landscape and geotourism: market typologies and visitor needs. European tourism and the environment conference: promotion and protection, achieving the balance, October 2007, Dublin, Ireland. Available at: <http://arrow.dit.ie/cgi/viewcontent.cgi?article=1001&context=tfshmtcon> (accessed 25 March 2017)
- Grant C (2010) Towards a typology of visitors to geosites. Making Unique Landforms Understandable, Mulu, Sarawak
- Hall CM, Weiler B (1992) Introduction: what's special about special interest tourism? In: Weiler B, Hall CM (eds) *Special interest tourism*. Belhaven Press, London, pp 1–14
- Ham SH (2007) From interpretation to protection. *Interpret J* 12(3):20–23
- Hose TA (1995) Selling the story of Britain's stone. *Environ Int* 10(2):16–17
- Hose TA (2000) Geological interpretation and geoconservation promotion for tourists. In: Barretino D, Wimbledon WAP, Gallego E (eds) *Geological heritage: its conservation and management*. Sociedad Geologica de Espana/Instituto Tecnológico GeoMinero de Espana/ProGEO, Madrid, pp 127–146
- Hose TA (2005a) Geotourism. Appreciating the deep time of landscapes. In: Novelli M (ed) *Niche tourism: contemporary issues, trends and cases*. Elsevier Butterworth-Heinemann, Oxford, pp 27–37
- Hose TA (2005b) Geotourism and interpretation. In: Dowling RK, Newsome D (eds) *Geotourism. Sustainability, impact, and management*. Elsevier Butterworth-Heinemann, Oxford, pp 221–241
- Hose TA (2007) Geotourism in Almería Province, Southeast Spain. *Tourism: An International Interdisciplinary Journal* 55(3):259–276
- Hose TA (2008) Towards a history of geotourism: definitions, antecedents and the future. In: Burek CV, Prosser CD (eds) *The history of geoconservation*. The Geological Society, Special Publications, London, 300, pp 37–60
- Hose TA (2010) The significance of aesthetic landscape appreciation to modern geotourism provision. In: Newsome D, Dowling RK (eds) *Geotourism. The tourism of geology and landscape*. Goodfellow Publishers, Oxford, pp 13–26
- Hose TA (2011) The English origins of geotourism (as a vehicle for geoconservation) and their relevance to current studies. *Acta Geogr Slov* 51(2):343–360
- Hose TA (2012) 3 g's for geotourism. *Geoheritage* 4(1):7–24
- Hose TA (2016a) Geotourism in Britain and Europe: historical and modern perspectives. In: Hose TA (ed) *Geoheritage and geotourism: a European perspective*. The Boydell Press, Woodbridge, pp 153–168
- Hose TA (2016b) Three centuries (1670–1970) of appreciating physical landscapes. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*. Geological society special publication 417. The Geological Society, London, pp 1–23
- Hughes K, Ballantyne R (2010) Interpretation rocks! Designing signs for geotourism sites. In: Newsome D, Dowling R (eds) *Geotourism: the tourism of geology and landscape*. Goodfellow Publishers, Oxford, pp 184–199
- Joyce EB (2006) *Geomorphological sites and the new geotourism in Australia*. Geological Society of Australia, Melbourne
- Kim SS, Kim M, Park J, Guo Y (2008) Cave tourism: tourists' characteristics, motivations to visit, and the segmentation of their behavior. *Asia Pac J Tour Res* 13(8):299–318
- King L (2010) Geotourism in the Hawaiian Islands. In: Newsome D, Dowling R (eds) *Geotourism: the tourism of geology and landscape*. Goodfellow Publishers, Oxford, pp 114–123
- Knapik R, Jala Z, Sobczyk A, Migoń P, Aleksandrowski P, Suszkiewicz A, Krapiec M, Madej S, Krakowski K (2009) *Inwentaryzacja i waloryzacja geostanowisk Karkonoskiego Parku Narodowego i jego otuliny oraz wykonanie mapy geologicznej tego obszaru*. Available at: http://www.przewodnik-sudecki.pl/dokumenty/wyszerpane/KPN_1_geostanowiska_zasady_inwentaryzacji.pdf (accessed 01 June 2017) (in Polish)
- Kowalczyk A (2010) *Turystyka zrównoważona*. PWN, Warszawa (in Polish)
- MacCannell D (2005) *Turysta. Nowa teoria klasy próżniaczej* (The tourist: a new theory of the leisure class). Muza, Warszawa (in Polish)
- McKercher B (2002) Towards a classification of cultural tourists. *Int J Tour Res* 4(1):29–38
- McKercher B, Du Cros H (2003) Testing a cultural tourism typology. *Int J Tour Res* 5(1):45–58
- Migoń P (ed) (2010) *Geomorphological landscapes of the world*. Springer, Dordrecht
- Migoń P (2012a) *Geoturystyka*. Wydawnictwo Naukowe PWN, Warszawa (in Polish)
- Migoń P (2012b) Stories behind superlative scenery. *World Heritage* 63: 18–25
- Migoń P (2016) Rediscovering geoheritage, reinventing geotourism: 200 years of experience from the Sudetes, Central Europe. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*. Geological society special publication 417. The Geological Society, London, pp 215–228
- Migoń P, Pijet-Migoń E (2017) Viewpoint geosites—values, conservation and management issues. *Proc Geol Assoc* 128:511–522
- Millán Escriche M (2011) La función didáctica del geoturismo. *Propuestas para la región de Murcia Revista de Investigaciones Turísticas Gran Tour* 4:62–93
- Monaghan P (2004) *The encyclopedia of Celtic mythology and folklore*. Facts on File, Inc, New York
- Nahrstedt W (2000) *Die Kulturreise—Gedanken zur Charakterisierung einer Reiseform*. In: Dreuxer A (ed) *Kulturtourismus*. München/Wien/Oldenbourg, pp 5–23
- Osadczyk A, Osadczyk K (2008) Szanse i perspektywy rozwoju geoturystyki jako nowej formy postrzegania obiektów przyrody nieożywionej i poznawania zjawisk naturalnych. In: Dutkowski M (ed) *Problemy turystyki i rekreacji 1*, USz, pp 131–141 (in Polish)
- Ożóg JB (1988) *Pięć esejów*. Krajowa Agencja Wydawnicza, Rzeszów (in Polish)
- Pullin R (2016) The artist as geotourist: Eugene von Guérard and the seminal sites of early volcanic research in Europe and Australia. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*. Geological society special publication 417. The Geological Society, London, pp 59–69
- Richards G (1996) *Cultural tourism in Europe*. CABI, Wallingford
- Robertson I, Richards P (2003) *Studying cultural landscapes*. Hodder Arnold, London
- Roesch S (2009) *The experiences of film locations tourists*. Aspect of Tourism, Channel View Publications, Bristol
- Różycka M, Migoń P (2017) Customer-oriented evaluation of geoheritage—on the example of volcanic geosites in the West Sudetes, SW Poland. *Geoheritage* 10:23–37. <https://doi.org/10.1007/s12371-017-0217-4>
- Schieb R (2002) The island of Rügen as mythic site of Germany. Lecture given at the Visby conference on 'The Baltic in Literature and Art' in November 2002. Available at: http://www.balticsealibrary.info/index.php?option=com_flexicontent&view=items&cid=66:essays&id=153:the-island-of-ruegen-as-mythic-site-of-germany&Itemid=29 (accessed 07 June 2017)
- Schivelbusch W (1986) *The railway journey. Trains and travel in the nineteenth century*. Blackwell, Oxford
- Schwarz S, Migoń P (2017) When science and leisure meet: a geotourist itinerary in southern Tierra Del Fuego, Argentina. In: Rabassa R (ed) *Advances in geomorphology and quaternary studies in Argentina*. Springer International Publishing, Cham, pp 49–75

- Silberberg T (1995) Cultural tourism and business opportunities for museums and heritage sites. *Tour Manag* 16(5):361–365
- Słomka T, Kicińska-Świdorska A (2004) Geoturystyka—podstawowe pojęcia. *Geoturystyka* 1:5–7 (in Polish)
- Sontag S (2009) O fotografii (On photography). *Karakter*, Kraków (in Polish)
- Stebbins RA (1996) Cultural tourism as serious leisure. *Ann Tour Res* 23(4):948–950
- Swire O, Black R, Tarn W, Swire J (2006) *Skye: the island and its legends*. Birlinn, Edinburgh
- Terlouw K (2014) Iconic site development and legitimating policies: the changing role of water in Dutch identity discourses. *Geoforum* 57: 30–39
- Tuuling I, Bauert H, Willman S, Budd GE (2011) *The Baltic Sea—geology and geotourism highlights*. NGO GEOGuide Baltoscandia, Tallin
- UNESCO (2016) *UNESCO global geoparks. Celebrating earth heritage, sustaining local communities*. UNESCO, Paris
- Urry J (1995) *Consuming places*. Routledge, London
- Urry J (2007) *Spojrzenie turysty (Tourist gaze)*. PWN, Warszawa (in Polish)
- Vasiljević DA, Marković SB, Vujčić MD (2016) Appreciation loess landscapes through history: the basis of modern loess geotourism in the Vojvodina region of North Serbia. In: Hose TA (ed) *Appreciating physical landscapes: three hundred years of geotourism*. Geological society special publication 417. The Geological Society, London, pp 229–239
- West T (1778) *A guide to the lakes: dedicated to the lovers of landscape studies, and to all who have visited, or intend to visit the lakes and Cumberland, Westmorland and Lancashire*. B.Law, etc, London
- Yoxon P, Yoxon GM (2005) *The geology of Skye*. Guide no 2. Skye Environmental Centre, Broadford
- Żeromski S (1925) *Puszcza Jodłowa*. *Almanach, Biblioteki Polskiej*” na rok 1925: 28–46 (in Polish)