Where is the community in geoparks? A systematic literature review and call for attention to the societal embedding of geoparks

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Geoparks are territorial landscape protection and promotion organisations with aims of geoheritage conservation, geo-education, and sustainable regional development using geotourism products. Building on an analytical literature review, using the Scopus database, this paper shows that geopark studies remain solidly positioned in the domain of the geosciences and have objectified, expert-based interpretations of landscape. This situation has resulted in a research gap concerning the role of communities, and their landscape values, in geoparks. The paper makes three claims that form a starting point for advancing our knowledge of geoparks: (1) (geo)heritage cannot be decoupled from people's activities and interpretations, (2) geoparks are not community-free environments, and (3) increased attention to communities is needed to assess sustainable regional development in geoparks. In the final analysis, there is a need to move beyond the realm of the geosciences to advance our understanding of the societal value of geoparks, and of their sustainable development potential.

KEYWORDS
geoheritage, geoparks, geotourism, heritage, regional development, sustainable development

1 | INTRODUCTION

The number of geoparks has risen explosively in the last decade, especially in Europe and East Asia. As territorially bounded landscape protection and promotion organisations, their goals consist of the conservation of “geoheritage,” the communication and promotion of this geoheritage to inhabitants and visitors with geotourism, and sustainable development using the geotourism product (Avelar et al., 2015; Azman et al., 2011; European Geoparks Network [EGN], 2000; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017). Academic attention, predominantly within the geoscience disciplines (geology and geomorphology), has followed the rapid development of geoparks, particularly but not exclusively in the journal Geoheritage since 2009. While this situation has led to the documentation of many landforms relevant for showcasing earth genesis processes, it has also resulted in limited attention to the societal role of geoparks (i.e., does the geopark concept, in practice, actually have a value to society?).

Consequently, this paper criticises the tendency in the current geopark literature to replicate descriptive case studies with generic conclusions that preserving and promoting geo(morpho)logical heritage for geotourism development “provide[s] a sound approach for sustainable development … since it can enhance conservation of resources whilst at the same time promoting socio-economic benefits for the local communities” (Badang et al., 2017, p. 443). As this present study shows,
critical analyses of the heritage values of landscapes, of the position of local communities, and of the processes through which the mentioned socio-economic benefits should be achieved, remain largely absent in geopark research. This lacuna is striking since studies in related fields show that: (1) (geo)heritage cannot be decoupled from the communities which construct, interpret, and experience certain objects or processes as being “heritage” (Ashworth et al., 2007; Harvey, 2001; Tunbridge & Ashworth, 1996), (2) communities are important stakeholders whose values need to be considered to avoid conflict in integrative natural resource management (Brown, 2013; Kaltenborn, 1998; Lassila, 2018; Williams & Stewart, 1998), and (3) benefits of tourism for communities in rural areas are often disappointing or, at the least, hard to achieve (Kauppila et al., 2009; Rogerson, 2015; Saarinen, 2003; Stoffelen & Vanneste, 2016). Building on an analytical literature review that is presented in the next section, this paper calls for more innovative, interdisciplinary studies of the role of the community in, and the societal embedding of, geoparks.

2 | LITERATURE REVIEW: METHODS

A search in the Scopus database in September 2018 for journal papers with “geopark*” in their title, abstract, and/or keywords resulted 348 papers with English abstracts. The first of these papers was published in 2002. Entries were deleted when the reading of the abstract showed that geoparks were data collection sites for research not related to the area's landscape. In total, 22 entries were deleted on this basis, resulting in a final tally of 326 papers. These papers were classified using a pre-defined coding scheme that consisted of three themes:

1. The main subject of the study. This topic was subdivided into three components, “geoheritage and geoconservation,” “geo-education and geotourism,” and “sustainable development and geotourism,” following the objectives of geoparks as defined by UNESCO (2017). A fourth category (“other”) was added to the classification to also correctly classify papers that do not focus on one of the three main geopark objectives. For these papers, their main topic was open coded into the fourth category.

2. The main landscape vision or approach, subdivided into “objectified” and “interpretative.” The former includes the description and classification of geo(morpho)logical landscape and landforms, in which the landscape is seen as a physical entity positioned separately from human valuation, meaning, and experience-creation processes. The latter includes descriptions of experiences and narratives of people in these landscapes, reflecting an interpretation of landscape as “a synthetic and integrating concept that refers both to a material-physical reality, originating from a continuous dynamic interaction between natural processes and human activity, and to the immaterial existential values and symbols of which the landscape is the signifier” (Antrop, 2006, p. 188). This distinction mirrors the clear disciplinary and epistemological division present in landscape studies (Castree, 2005; Stoffelen & Vanneste, 2015). When the landscape vision or approach of the paper was unclear or undefined, the third code “not applicable” (n/a) was used.

3. The presence of “community,” “communities,” “identity,” “place attachment” (or related themes) in the title and/or abstract. If one of these elements was present, the paper was analysed to see if the communities formed the subject of the study or if they were discussed as the context and, hence, as passive players in the landscape.

The papers were classified in this coding scheme on the basis of their title and abstract. When the reading of the abstract was insufficient to confidently classify the paper, the whole paper was scanned for clarification. The country of the affiliation of the first author was also noted to give insights into the geography of academic attention to geoparks.

The results of the literature review, described in the following section, show that objectified interpretations of (geo)heritage and landscapes dominate in the current body of academic literature while communities are notably under-researched. The descriptive statistics of the paper classification form the basis for the subsequent discussion on the consequences and shortcomings of the limited attention to the community in, and societal embedding of, geoparks in academic studies.

3 | LITERATURE REVIEW: RESULTS

Geopark research has a clear geographical distribution. The most productive region is East Asia, particularly China and Malaysia. Scholars affiliated to institutions in this region contributed to 104 of the 326 papers (32% of the total). Researchers from Mediterranean Europe (Portugal, Spain, Italy, Greece, and Turkey; 64 papers, 20%) and Central and Eastern Europe (58 papers, 18%) are also rather prolific. Scholars from other European countries contributed 45 papers (14%). This
spatial pattern of scholarly attention to geoparks matches the geographical location of the members of the UNESCO Global Geoparks Network (GGN, 2018).

Table 1 shows the topic classification of the papers covered in the literature review. Papers with expert-based visions on geoheritage, geodiversity, and geoconservation measures, which describe the value of recognising and conserving physical landforms from a geoscientific perspective, form the largest body of research. Papers with a more interpretative focus on geoheritage, hence, with attention to the process of heritage creation or the recognition of landforms as “geoheritage” by stakeholders other than the authors of the paper themselves, are in the minority. The educational potential of physical landforms, with a focus on information flows from the geopark or geoscientists to the general public either through providing information on the geo(morpho)logical landforms or through developing geotourism, as well as sustainable development receive slightly more attention. Additionally, 30% of the papers focus on topics that are not related to the main objectives of geoparks as defined by UNESCO. Most of these studies were purely geological analyses of geopark areas (n = 46, 14%), followed by papers on the geopark movement in general and governance and planning in geoparks (both n = 15, 5%).

Table 2 describes the second (the main landscape vision or approach) and third (the presence of “community” in the title or abstract) themes of the classification scheme. Almost 75% of the papers have objectified landscape visions, which focus on the “objective” (expert-based) description, valuation, and classification of geo(morpho)logical landforms in which geoscientific analysis is used to assess the intrinsic value of the landscape. Papers with a more interpretative focus on landscapes were scarce, with only 19 out of 326 papers being classified as such. While communities are included in the title and/or abstract of 80 papers (25%), only 24 papers have communities as the subject of studies. More than 90% of the geopark papers do not directly engage with local communities.

4 | DISCUSSION

In short, the results from the literature review show that geopark studies remain solidly positioned in the domain of the geosciences and pay limited attention to communities and their landscape values. I discuss below why this research gap

<table>
<thead>
<tr>
<th>Year</th>
<th>Papers</th>
<th>Geoheritage, geodiversity, and geoconservation descriptions</th>
<th>Geo-education and geotourism</th>
<th>Sustainable development and geotourism</th>
<th>Other</th>
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limits our understanding of geoparks with reference to three claims that could provide avenues for elaboration in future studies.

4.1 | (Geo)heritage cannot be decoupled from people's activities and interpretations

Even though geoheritage identification and conservation are main aims of geoparks and the literature review has indicated that geoheritage conservation is the largest topic covered (Table 1), the academic discussion on what constitutes geoheritage remains limited. Geoheritage is defined by the geoscientific values of particular landscapes and landforms (Brocx & Semeñiuik, 2007; Panizza, 2009). It is used as a synonym for areas or sites of high geo(morpho)logical interest. In content, the discussion on geoheritage remains disconnected from the well-developed field of heritage studies, with only a few tentative exceptions (e.g., Gordon, 2018). The almost universally accepted characteristics of heritage are not applied to geopark contexts, despite the growing overlap between natural and cultural heritage valuation and conservation in practice (Taylor & Lennon, 2011). These characteristics include that heritage relates to contemporary needs and experiences of people rather than to static objects or to objects of the past (Ashworth et al., 2007; Tunbridge & Ashworth, 1996), that heritage visions are historically embedded and change over time (Harvey, 2001; Kolen & Renes, 2015), and that heritage interpretation is context-dependent (Bi et al., 2016; Crang, 2015). By positioning geoheritage firmly in the realm of the geosciences, geoheritage is predominantly discussed in the geopark literature with what Lowenthal (2005) calls “purist” preferences that are largely rejected in cultural heritage interpretations because “heritage is everywhere mixed” (p. 88). In other words, heritage cannot be decoupled from its cultural context and the communities which construct, interpret, and experience certain objects, processes, or places, also physical landscapes, as “heritage.”

A short extension of this debate can be made to the concept of authenticity. The scientific, expert vision that is at the basis of geoheritage valuation which “involves proper identification, characterisation, assessment and ranking of significant geoheritage sites or geosites based on their scientific, aesthetic, cultural and recreational heritage value” (Badang et al., 2017, p. 443), refers to an “objective authenticity” of these landforms. When presented in geotourism products, visitors
could be enlightened as to the intrinsic value and importance of the physical landforms (Bouzekraoui et al., 2018; Comanescu & Nedelea, 2010). In contrast, the extensive discussion on the authenticity of heritage has moved beyond this objectified vision on heritage objects, pointing to the inability to find absolute criteria to define what constitutes the “real.” In response, heritage has come to include constructive (as socially constructed by people) and existential (focusing on the authenticity projected onto an object by people in the search for self-identification) forms of authenticity (Wang, 1999), firmly entrenching the idea that heritage is not the domain of scientific value assessments but of process-based analysis of the constructed meaning regarding the object or subject of study.

By positioning the term outside of these broader heritage and authenticity debates, geoheritage as a concept remains a rather empty signifier as it does not clearly incorporate what defines the heritage value of landscapes. One consequence is that the current scholarly and practical use of the term serves the interests of those who claim that specific landscapes and landforms are heritage (i.e., the field of geoscience that benefits from confirmation of the intrinsic value of its subject of study, and geoparks in an instrumental sense to safeguard their future existence). More critical engagement with existing heritage studies could move the field beyond self-confirmatory case studies and could lead to further theorisation. It could also lead to more critical empirical reflection on what (and who) make(s) physical landscapes heritage.

4.2 | Geoparks are not community-free environments

As shown by the literature review, objectified landscapes have become the almost unchallenged subject of geopark studies with communities being approached merely as a backdrop to use for, or to include in, planning for geoheritage conservation. The combination of, on the one hand, the detailed attention paid to expert-based geoheritage assessments and description of geo-education activities (Table 1) and, on the other hand, the limited focus on communities and their landscape values (Table 2), reflects the dominant academic approach to studying the unilateral provision of information by the geopark to the resident or visitor to improve their awareness of geoheritage values. Studies of whether these information flows match with the landscape values, habits, and practices of the geoparks’ community are virtually non-existent. This way, geoparks are analytically placed outside of the realm of society by emphasising the intrinsic, essential value of the physical landscape that could be mobilised for societal benefit.

Meanwhile, landscape scholars and many geographers argue that landscapes are not objective but are at the midpoint of physical layers and people’s individual and collective activities, interpretations, and value systems (e.g., Antrop, 2006; Görg, 2007; Stoffelen & Vanneste, 2015). Such views include that “heritage places (sites) are not isolated islands and that there is an interdependence of people, social structures, and the landscape and associated ecological systems” (Taylor & Lennon, 2011, p. 537). While epistemological differences between natural and social scientists are at the basis of the discussion on what constitute landscapes, geoparks, in practice, have considerable freedom to position themselves in this debate. Geoparks actually take up a conceptual middle-range position (Castree, 2005) since they, by definition, target geo-(morpho)logical landscapes in interaction with which communities have established cultural values, habits, and land uses (EGN, 2000; UNESCO, 2017).

A comparison with a related field of study shows that these disciplinary and epistemological barriers are not insurmountable. Geopark studies regularly include notions that the abiotic environment (the physical landscape) should be included in conservation measures on an equal level to the biotic environment due to its constitutive influence on the biosphere and its non-renewable character (e.g., Badang et al., 2017; Chakraborty et al., 2015; Gray, 2004). The natural resource management literature, which deals with the biotic environment to which the physical landscape should be compared in conservation measures, already made a move at the end of the 1990s from objectified, natural science-based approaches to including subjective and contextual values in conservation and management plans (Cantrill & Senecah, 2001; Williams & Stewart, 1998). For example, Brown (2005) uses landscape values as a bridging concept between ecosystem science and nature conservation management. By including perceived landscape values of locals, conservation measures can balance between natural, cultural, and economic values of landscapes, include tacit knowledge in planning efforts, and work towards more holistic spatial management with less danger of alienating local stakeholders (Brown, 2005). Such studies have resulted in the widespread acceptance that communities are important stakeholders whose values need to be considered to avoid conflict in integrative natural resource management (Brown, 2013; Kaltenborn, 1998; Lassila, 2018; Williams & Stewart, 1998). Hence, studies on community involvement in landscape conservation should not just passively describe communities as part of the context of geoparks, as is currently the tendency in geopark studies (Table 2). Further attention to communities’ values, affinity, and identity-creation in relation to the landscapes is of fundamental importance to deepen our knowledge on how geoparks institutionalise existing landscape values or may lead to conflicts that could undermine the ability of geoparks to reach their objectives.
4.3 | Attention to communities is needed to assess sustainable regional development in geoparks

Sustainable regional development is, by definition, one of the main objectives of geoparks (EGN, 2000; UNESCO, 2017), yet the literature review has indicated that rather few studies have geotourism and sustainable development as their main subject (Table 1). Simultaneously, the reading of the abstracts showed that most studies do mention the sustainable regional development potential of geoparks, but as a logical consequence of high geoheritage values. In other words, sustainable regional development is often seen as automatically following from attracting tourists with geotourism products that communicate the “objective” value of the geoheritage in an area.

However, tourism geographers have convincingly shown that success in attracting tourists does not equal success in using tourism for sustainable regional development (Kauppila et al., 2009; Rogerson, 2015; Saarinen, 2003; Stoffelen & Vanneste, 2016). Saarinen et al. (2017) summarise this field of research by describing the consensus among tourism geographers that, in order to achieve development, the growth-oriented characteristics of the tourism sector need to be regulated by a holistic governance and planning regime. Since tourism is not a self-regulatory sector (Bramwell, 2010), integrative and empowering networks of stakeholders are required to facilitate social and spatial inclusivity and to overcome the unequal distribution of impacts and power imbalances (Rogerson, 2015). Combining these insights with case-study evidence in Scotland led Stoffelen and Vanneste (2016) to concluding that there is a widespread “implementation gap” between the regional development potential of tourism and actual, concrete outcomes. Local and regional benefits of tourism are often also disappointing in developing countries, despite nature-based tourism having led to important gross domestic product contributions. This situation is the consequence of disempowered communities, limited skills and access to training and finances of local entrepreneurs, and non-inclusive international value chains (Adiyia et al., 2015; Dodds et al., 2016). For this reason, the United Nations World Tourism Organization (UNWTO) addresses the need to actively regulate the tourism sector to reach the UN Sustainable Development Goals, as well as to uncover the sector’s poverty alleviation potential (e.g., UNWTO, 2017).

Specifically regarding geotourism, Bosak et al. (2010) have shown how the ostensibly neutral objective to communicate the unique character of landscapes to tourists in Montana (USA), Alberta, and British Columbia (Canada) institutionalises landscape visions of established organisations. This situation led to the absence of people with alternative visions in the communication of tourism products and, consequently, in itineraries and consumption paths of tourists that determine the socio-spatial distribution of tourism-related benefits (Bosak et al., 2010; Hall, 2005). Such insights from the tourism geography literature reflect the simplistic character of general calls that “[w]hen geotourists move to geoparks, the money moves in the same direction” (Farsani et al., 2011, p. 68). Put differently, the taken-for-granted attitude in most geopark studies that a high tourism potential of an area leads, almost automatically, to regional community benefits does not match the scholarship on sustainable regional development implications of tourism development.

5 | CONCLUSION

Geoparks are territorial landscape protection and promotion institutions with aims of geoheritage conservation, geo-education, and sustainable regional development using geotourism products (EGN, 2000; UNESCO, 2017). The academic and societal attention to geoparks has risen markedly in the last decade. Using a literature review of geopark studies, this paper, however, identified a key shortcoming of the academic debate on these institutions: because of the dominance of geoscientific orientations in the debate, geoparks and their landscapes are analytically positioned separately from the sphere of society. This analytical position has led to an academic field characterised by repetitive, descriptive case studies that are rather self-confirmatory as to the societal importance of geoparks. The research field still needs to make the step to tackle the subjective and constructed nature of landscapes, and the lived reality of the main stakeholder group in geoparks (the community). Owing to limited cross-pollination with existing disciplines and debates on, for example, heritage, tourism, and sustainable regional development, this situation has resulted in limited critical insights in how geoparks actually contribute to, or could reach, their three main objectives. Consequently, fundamental research gaps are in place today, despite the widespread practical dynamism in the geopark movement around the globe.

It is important to be aware that this paper does not reject the value of studies that focus on the geo(morpho)logical characteristics of geoparks. However, it does criticise the tendency in geopark studies to almost unanimously accept and confirm the value of geoparks as landscape protection institutions and as drivers for sustainable regional development, without critically engaging with the societal processes that, in fact, determine whether such claims can be made. In this sense, there is an explicit need to move beyond the realm of the geosciences to create new and meaningful insights in the societal role...
of geoparks. It is then a quest for finding a middle way in which human–environment interactions, in this case in the context of geoparks, can be analysed from different angles and combined in a transdisciplinary approach, as could be observed in some of the natural resource management literature (e.g., Brown, 2013; Görg, 2007; Williams & Stewart, 1998). Since geoparks are, in essence, social institutions and constructs that deal with physical environments, ignoring their societal embedding in research does not further our understanding of the societal value of geoparks, or their broader sustainable development potential.

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