

# METHODS OF INTERPRETATION IN THE NATURE-BASED TOURISM – A QUALITATIVE SURVEY

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## Abstract

*Interpretation of cultural and natural heritage is a current direction of research in the sector of tourism, derived from the present-day broader concerns regarding the identification of appropriate ways to contribute to the objectives of developing a sustainable tourism that uses more rationally the cultural and natural resources that it is based on and takes into account the needs and interests of all stakeholders involved in its development. The methods of interpretation used by specialists are either personal or non-personal and concern the effective ways of performing it. The present paper analyzes, through a qualitative approach, the main methods of interpreting the natural heritage, reflected in the literature. It is noted that managers use personal and non-personal interpretation methods adapted to the visited site, the effective involvement of tourists and staff being essential in achieving the objectives related to visitor satisfaction, their attitude and behavior towards the impacts generated by tourism. At its turn, the use of new technologies in interpretation is both a concern and a way to achieve these goals.*

**Keywords:** natural site, nature-based tourism, methods of interpretation, new technologies, the impacts of tourism, natural environment

## Introduction

At present, nature-based tourism highly attracts the customers due to multiple reasons. The most frequently mentioned reasons are: the loss of roots because of the massive urbanization of the last decades and of the fact that cities are stressful, the diversified tourist offer, especially among emerging countries, that bring new natural destinations in the international circuit, the environmental issues awareness. Moreover it is to be mentioned the increasing demand for tourism generated by the improvement of the living standard in many countries, the tourist products acquiring characteristics par with basic necessities. The interpretation is becoming more and more important due to the support provided for visitors to understand the significance of natural resources, the need to conserve them and to

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minimize the negative impacts that tourism activities can generate, using various methods and techniques proposed in literature. Some authors (Newsome, Moore and Dowling, 2013, p. 295) emphasizes the three key-roles for interpretation: educational activities, recreational and conservation supporting behaviours. First of all, by interpretation the visitors are informed about the site, they can acquire new knowledge and skills and they can better understand the locals as well as the environmental issues. Recreational activities are designed to increase the level of visitor enjoyment and his wellbeing, to stimulate the visitor emotional involvement and to support visitors to understand the significance and the value of the site. Conservation-supporting behaviours are stimulated by the interpretation activities which are designed to increase the visitor awareness of human impacts on natural environment, to encourage visitor to support for environmental protection initiatives and to adopt some attitudes and behaviours to minimize the negative impacts on the natural environment.

The interpretation can improve visitors' experience. It can also consolidate the relation between the site and those living nearby and, by increasing the attractivity of a historical or natural site, interpretation can lead to economic growth in that particular area. Managers in protected areas, museums and patrimony sites, in tourist regions and destinations may lead to accomplishing their organisation's mission regarding their target audience and stakeholders by reaching objectives related to teaching people about their site or topic, by raising awareness of the significance of the site and by winning community's support in the preservation and management as well as in the increase of number of visitors and revenues from high quality interpretation programmes and activities (Jarolimkova *et al.*, 2021, p. 77). The quality of the site's and local community's image is improved by sending information from satisfied visitors (Heritage Council Ireland, 2015). A good quality interpretation also helps both visitors and locals develop their curiosity, their will to discover more and more information on the natural or cultural site they inherit and to understand why a past place, collection, object or event is considered significant (Poria, Biran and Reichel, 2009, p. 101). Interpretation uses a non-formal approach meant for people who spend their free time to reach a deeper understanding of significations and relations because what they see can prove relevant to them (Jarolimkova *et al.*, 2021, p. 77). Beyond facilitating inherited patrimony-related knowledge, interpretation may add a visit or simply gather opinions from specialists and visitors. A negative experience can lead to the erroneous transmission of a site's historical significance as well as to the enstrangement of those visiting it.

Interpretation means to inform, to involve and to educate visitors in different activities comprised by the interpretation plane. The interpreters and managers of the natural or cultural sites use appropriate methods and techniques to achieve the envisaged objectives. Guided tour is the most efficient method in many situations but is not preferred by visitors to some religious sites (Tătărușanu *et al.*, 2021). The sites could preserve the natural environment by using the new technologies in



interpretation (interpretive centers), but in the same time the satisfaction of visitors decreases in some cases (because the visitors prefer to experiment themselves the wildlife in a natural park).

## 1. Nature-based tourism

The concept of nature-based tourism is described in literature as a type of tourism that comprises a wide range of activities (swimming, trekking, picnics, learning, diving, photography, spending time with friends or family) performed in natural areas untroubled by humans (Metin, 2019, p. 177). Nature-based tourism consists in various types of activities such as wildlife tourism and tourism based on plants, vegetation, natural scenery, that rely on undisturbed natural environment and resources (Buckley, 2009, p. 2). It can also be defined as the type of tourism dictated by the desire of people to enjoy wilderness or undeveloped natural areas and that may include natural attractions such as landscapes, topography, streams, vegetation, wildlife and cultural heritage and activities such as hunting or white-water rafting (World Bank, 2017). It is subordinated to sustainable tourism, which focuses on the use of its resources taking into account current and future economic, social and environmental impacts, “in order to meet the needs of visitors, industry, the environment and the host community” (United Nations, 2021). In its turn, responsible tourism implies maximizing the benefits for the local community and minimizing the negative social and environmental impacts and it supports the community in its efforts to preserve fragile culture and habitats (CREST, 2002, in United Nations, 2021). The latter refers to a certain behaviour towards stakeholders in the long-term maintenance of the resources that tourism activities are based on, in benefit-sharing and in the decrease of negative impacts that tourists and companies in the field can generate on the cultural or natural environment and on the involved host communities. Ecotourism, sometimes used as a synonym for nature-based tourism, involves the responsible use of natural resources in tourism activities, taking into account the need to decrease the negative impacts and it envisages the importance of interpreting, educating and appreciating the local community (Martin and Da Silva, 2018, p. 490).

The tourists' motivations to participate in nature-based activities consist in enjoying the nature and escaping from daily routine, discovering new types of travels, pursuing healthy life and pursuing intimacy (Kim *et al.*, 2015, p. 15). Some studies show that the motivations for ecotourists are nature, multiple motives and reward and escape (Carrascosa-López *et al.*, 2021, p. 13), while novelty seeking (novelty learning, adventure, relaxation, and boredom relief) is one of the most important motives for travelling at a natural park from Laos (Kitouna and Kim, 2017, p. 55). Other studies conclude that novelty, prestige and physical activity are the main motivations for tourists who decide to participate in whale safaris, fishing and hiking (Mehmetoglu and Normann, 2013, p. 7). As a conclusion, the authors emphasize the role of novelty, prestige, learning, adventure, pursuing a healthy



lifestyle, relaxation and escaping from daily routine as main travel motivators in nature based tourism.

Nature-based tourism is on an accelerated uptrend, especially for ethical reasons - awareness of environmental issues and the need for the tourism sector to provide an appropriate response, concerns about irrational consumption of natural resources (Metin, 2019, p. 175) and for the need of people to get closer to the roots, to nature, to retreat from urban, crowded and noisy areas in quiet places, but also for the desire to learn and experience something new, different.

## 2. Methods of interpretation in the tourism sector

Interpretation of natural and cultural heritage is *an educational activity* that aims *to reveal meanings and connections* through the use of original objects, first-hand experience and appropriate media and *not just the communication of factual information* (Tilden, 1967, p. 8). It refers to all ways of conveying the meaning of an element (Heritage Council of NSW, 2005). Interpretation implies the detection of the deep meaning of the elements of natural and cultural heritage and its transmission to the interested public, using real elements (artifacts, landscapes, etc.) and an appropriate media, in order to achieve the following goals: education, understanding of authentic meaning by tourists, awareness of the importance of conserving existing resources and the need to protect them for present and future generations. Environmental interpretation refers to a type of communication that focuses on how to explain environmental concepts to the public, by using specific methods and techniques.

There are some principles in interpretation the nature and wildlife for tourists (Association for Heritage Interpretation, 2017). It is recommended by the first principle to encourage the active involvement of participants, based upon first-hand experience for supporting them to better understand the impacts of human activities and the need of protecting the natural environment. The second principle refers to the need of facilitating the maximum use of the senses to experience new situations and feelings (visitors are encouraged to use their smell, see, hear, feel and taste things). The third principle is about encouraging people to self-discovery and actively search for wildlife. The last principle refers to the requirement of understanding the segments of visitors and adapting the interpretation to their interests and motivations.

The methods of interpretation may be, depending on the interaction, or not with people (employees or volunteers) in the activities offered when visiting the site (Jarolimkova *et al.*, 2021, p. 77):

- Personal interpretation - takes place with the help of an animator, when an actor plays the character of a person from a certain period. Interpretation can also take place in the form of a demonstration - when an actor does not put himself in a certain type of character, but talks about a historical period.

- Non-personal interpretation - is performed by an interpreter, who is an expert in a particular subject, but does not dress specifically for the described period.

Interpretive staff may include indigenous representatives, tour guides, tour operators, museum guides, security staff and educators, curators or park rangers, experts in different areas (biology, archeology etc).

The main advantages of personal interpretation are (Association for Heritage Interpretation, 2017, p. 3-4): the interpretation can be easily updated and tailored to the needs of visitors, it is effective and stimulate the active involvement of visitors in various activities, help visitors better understand the nature and the issue of natural environment protection.

Non-personal interpretation could be furnished by using various techniques tailored on different visitors' groups. The strengths of these methods and techniques are (Association for Heritage Interpretation, 2017): information is always available and can be easily updated, it allows visitors to explore the site at their own pace, to experience themselves the life in the natural environment. By using new technologies (virtual reality and augmented reality), visitors can "travel" in different places from their home, to engage in virtual events and to inform themselves about natural sites and to improve their knowledge in the area of natural environment and wildlife.

The media used in the interpretation and presentation of interpretive content consists of virtual environment, interactive devices, educational signals, graphics, sound, smell, exhibitions (interactive or static).

The methods and techniques can be, in this case: guided tours, self-guided tours, trekking, concerts and festivals, theater, traditional dances, virtual tours, places, web pages, demonstration, exhibition, narration, workshops, ceremonies, conferences, museums, interpretive centers etc.

In a book dedicated to the interpretation of nature and wildlife for tourism, the methods and techniques of interpretation are classified upon on the media used to inform the public about the site promoted (Association for Heritage Interpretation, 2015, pp. 3-4):

- a. Publications and websites: the information are presented in a static way, on printed paper or e-content format;
- b. Visitors centers, viewing points and roadside exhibits: the interpretation content is presented at a focal point on paper-based, audio, video, life exhibits;
- c. Wildlife viewing hides: the visitors can looking to the wildlife and to acquire more information presented in a static form by using graphic panels;
- d. Involving rangers, guides and volunteers (guided-tours and face to face interpretation); tours can cover a wide range of topics and the information can be furnished by using stories, drama, music, walks, events and different props (exemple: a binocular for watching the wild animal in their habitat);



- e. Self-guided trails: visitors can follow a designated trail using a leaflet, map, signs, pannels or an audio-guide;
- f. Electronic tools: the interpretation is furnished by using a camera, mobile devices and apps, podcasts, interactive maps and downloadable audio trails.

The methods and techniques must be tailored to visitors' interests, motivation, demographic profile, as well as to specificity of the natural site. Some of them require large spaces or a specific infrastructure that can be expensive (interpretive centers). Other methods require available trained staff that can be difficult of hiring and maintaining on long term (naturalist guide, scientists and even locals who can talk about the history of the site, about communities and their role in nature preservation). Even though it is expensive, the new technology is very useful in interpretation the natural resources, especially at the protected areas and species or dangerous places. A wide range of equipment and tools have been developed in the last decades and these support visitors to inform about the nature and wildlife (displays, computers, websites). The apps downloaded on mobile phone contribute to better understand by visitors the life of the animals in their natural habitats (games, simulating the real life).

### 3. Content analysis-based study

In order to identify the methods used in interpretation for nature-based tourism, a content analysis was conducted. A first analysis was made on the Scopus databases, the largest database that includes peer-reviewed abstracts and literature and provides smart analysis tools for interested researchers and institutions. By using keywords, there can be identified authors, publishing houses, journals, the number of published articles, the affiliation of the authors, the fields in which the research was carried out. In this case, there were performed analysis based on three sets of keywords: "methods of interpretation in nature-based tourism", "interpretation in nature-based tourism" and "methods of interpretation", "nature-based tourism". The number of articles identified by searching on the exact topic, with the keywords "methods of interpretation in nature-based tourism" was 9 (the articles were repeated in the next search). The second analysis focused on the results obtained by selecting the papers based on the keywords „interpretation in nature-based tourism". There were 59 papers published between 1994-2021, most of which were in the field of social sciences (29.1%), environmental sciences (18.4%), economics, econometrics and finance (3.7%) (Scopus, 2021). Subsequently, the articles that addressed the topic of interpretation were selected, either directly or by describing the existing interpretation methods at the sites studied in the context of the overall research. In table no. 1 the main selected articles are presented, being described in accordance with the objectives they aimed at and the methods of interpretation presented.

**Table 1. Methods of interpretation identified in studies on nature-based tourism**

<b>Author</b>	<b>Goals Results</b>	<b>Methods of interpretation used</b>
<b>Raikkonen et al., 2021</b>	Conceptualization- nature-based science tourism (wildlife tourism and ecotourism): tourism-based on scientific knowledge, tourism with specific adventures or volunteering, scientific research tourism.	- Guided-tour with scientific interpretation; - Intensive scientific excursions;
<b>Priskin, 2003, p. 201-203</b>	The influence of nature-based tourism in the degradation of marine coastal areas - different perceptions of visitors, depending on socio-demographic characteristics (age, origin, education)	- experimenting: swimming, boating, fishing, diving and snorkeling, (wind) surfing, sandboarding, four-wheel driving, (bush) walking, camping, horseriding and sightseeing.
<b>Hofman, et. al, 2021</b>	- VR snorkeling and snorkeling tour in real contribute similarly to the enhancement of conservation behaviour	- snorkeling tour in real life; - snorkeling tour in virtual reality;
<b>Sunarta et al., 2019, p. 341</b>	- Different interpretations are developed by different stakeholders involved in nature-based tourism: experts, community, tourism companies.	- ritual ceremonies - productive works; - trails; - canoe trips;
<b>Kyoung et al., 2010</b>	The interpretation significantly influences the attitude towards certain specific aspects, but it does not have an important impact on the attitude and general behavior of the tourists towards the environment. Interpretation that contains emotional messages may have a higher effect on visitors' intentions to promote preservation.	- signs, brochures, guided walks, talks to the staff, - publications, an internet website, and the Heritage Center; - Exhibitions/ displays and video materials (films); - computer interactions; - educational tours;
<b>Jacobs, and Harms, 2014,</b>	The problems generated by nature-based tourism can be taken into consideration in the interpretation programs, through objectives of educating tourists.	
<b>Orams, 1996, p. 91-92</b>		
<b>Madin, and Fenton, 2004, p. 121</b>	Reef-based visitor interpretation programs (off-site) may influence the comprehension of visitors of environmental problems on a marine site (barrier reef).	- safari (watching wildlife) on foot - guided-hikes - briefings before safari - discussions during safari - stories, taking photos in the park; - enjoying landscapes
<b>McNamara, and Pridaux, 2010</b>	Visitors read little of the information displayed on public sites in comparison with the commercial ones.	- signs - displays

<b>Dybsand and Fredman, 2021, p. 148</b>	Guidance and interpretation are essential factors in the satisfaction of tourists towards wildlife tourism.	- guided trails
<b>Sivakami, and Bindu, 2020, p. 86-87</b>	The facilities offered are important for the satisfaction of visitors, and their demographic profile influences the perception of the experience at natural sites.	- watching nature: jungle safari, trekking, rafting, bear path trekking, bamboo rafting, camping, jungle camp, pugmark trekking, shopping, nature watch, elephants safari - exhibition of arts craft - web sites, blogs, newspapers - tribal symphony
<b>Healy <i>et al.</i>, 2016, p. 580-581</b>	Visitors prefer the low-intensity interpretation to the highly technological one, being attracted primarily by the landscapes and the connection with the natural environment; To analyze how games can be designed and used to elicit positive emotions among tourists	-Visitor centers
<b>Coghlan, and Carter, 2020</b>		
<b>Rahman, 2019, p. 55</b>	Design of an ecological interpretation center at a mangrove conservation park	- walking trail - a library, an animal museum and a plant museum - seminar - watching the scenery and the forest
<b>Black, 2017</b>	The importance of initiating interpretive conversations at natural and cultural sites	- Interpretive conversation between tourists and staff

Source: own processing

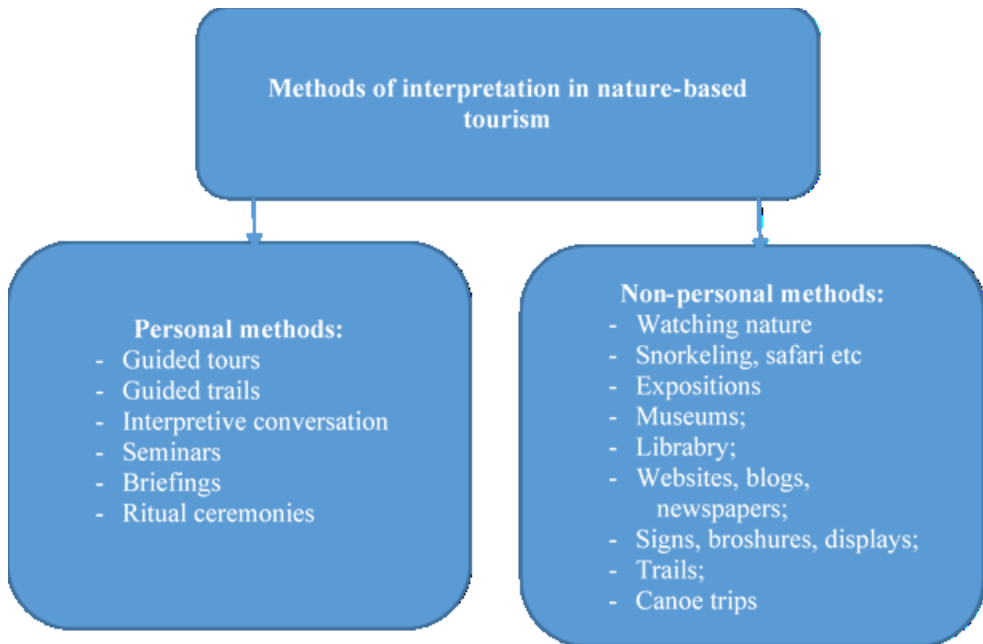
- The approached topics in the resulting works refer to:
- Understanding by nature-based tourism stakeholders of the impact of climate change and how it influences behavior change (stakeholders are considered: tourists, tourism companies, local community, natural environment);
  - Evaluating the interpretation on the behavior and attitudes of tourists towards environmental issues;
  - The impact of nature-based tourism on the wilderness;
  - Visitors' perception on attachment to a certain wild area;
  - Use of new technologies for interpretation in nature-based tourism;
  - Conceptualizing nature-based tourism and the science of natural tourism;





- The contribution of different methods and techniques of interpretation to the satisfaction of visitors in nature-based tourism.

**Figure 1. Methods and techniques of interpretation in nature-based tourism**



Source: own representation

The methods of interpretation used in nature-based tourism described in the literature are (figure 1): non-personal methods, such as signs, brochures, websites, watching the scenery and the forest, trails, blogs, newspapers, exhibitions, rafting, trekking, museums/visitors centers, methods based on new technology (virtual reality and augmented reality). At the natural parks the content of interpretation delivered to visitors by using signs and displays is more efficient in public sites than in commercial ones (McNamara and Pridaux, 2014), but the interpretation methods which contain an emotional message can influence the intention of visitors to promote preservation (Kyoung *et al.*, 2010; Jacobs and Harms, 2010; Orams, 1996). The interpretation programs (off-site) may help visitors understanding the environmental problems on a marine site (Madin and Feyton, 2004) and impacts of the human activities on the nature (Priskin, 2003, p.189). The interpretation and guidance influence the visitors satisfaction (Dybsand and Fredman, 2021, p. 148) and facilities are perceived as a satisfaction factor depending on the socio-demographic profile of visitors (Sivakami and Bindu, 2020, p. 86).

However, in natural tourism, personal methods, that ask for the implication of the specialized staff, whether referring to tourist guides or experts in various subjects, depending on the type of site visited (biologists, marine biologists, archaeologists, etc.) are very important. Thus, in literature there are highlighted: guided tour, guided hike, interpretive conversation, ad-hoc discussions with staff, seminars, briefings. In their research, the authors emphasize the importance of interpreting nature-based tourism to educate visitors in order to protect natural resources, to improve their awareness of ecology, to better understand human connection with nature and to participate in long-term maintenance of these resources. Also, the accelerated development of new technologies that improve the visitors' experience is of a particular interest, especially when we talk about the effects of the Covid-19 pandemic, that led to a significant decrease in people's mobility and, including, travelling for the purposes of tourism. In this context, non-personal interpretation has almost entirely taken the place of personal methods of presenting interpretation, natural site managers being increasingly convinced of the usefulness of interpretation through virtual reality and augmented reality, which allow interaction in the virtual environment with staff, participation at events, concerts, interactive games on smart devices. The results of the study shows that researchers are interested in developing apps for interpreting the natural resources (Coghlan and Carter, 2020), evaluating the perceived differences between the interpretation in real life and in virtual reality (Hofman *et al.*, 2021) or the visitors preferences low-intensity interpretation or highly technological one (Healy *et al.*, 2016, p. 580). In the nature-based tourism, it seemed that visitors prefer to experiment themselves, to see interesting places and wild animals, to interact with the nature and admire its beauty. They appreciate the methods of interpretation that encourage them to live new and interesting experiences.

## Conclusions

Interpretation is essential in understanding the significance of natural sites and in educating visitors and other stakeholders about the need to protect the natural environment in which nature-based tourism activities take place and in awareness of the need to minimize the negative impacts generated by practicing these activities and increasing visitor satisfaction.

The papers analyzed in the present study focuses on conceptualization the nature-based tourism, nature-based tourism science, the impacts of this type of tourism on the natural environment and wildlife as well as visitor satisfaction and interpretation. The central issue of many research and case studies presented focuses on how to interpret the nature and wildlife to make visitors, locals, managers, and other stakeholders better understand the negative impacts generated by human activities on the natural environment and to encourage them to participate in environmental activities protection. Another important issue consists in measuring the contribution of the methods of interpretation to visitor satisfaction



and economic benefits. Some research analyzes the perception of the stakeholders on the interpretation and their intention to adopt such attitudes and behaviours which are more appropriated to the achievement of the natural environment protection goals, reducing the negative impacts of tourism activities on the wildlife and participating to the preservation of the resources for future generation. A number of studies are dedicated to the new technologies and their efficient use in interpreting the nature-based resources for tourism. They could be used for: creating more ecological spaces/facilities for tourists, increasing the level of visitor engagement in tourism activities, enriching the travel experience and tourist satisfaction.

The methods of interpretation used by natural site managers are both personal and non-personal, and the increase of the role of new technologies in conveying messages of interpretation, in amplifying the sensations and experiences of visitors is fully inserted in the interpretation. The studies that were examined reveal the importance of personal interpretation for visitors, especially when envisaging the goal of protection and conservation of the resources that nature-based tourism depends on, but also in understanding their authentic meaning. Also, the actual participation of visitors, throughout the activities at the place of destination, has a significant impact on their attitudes and behaviour towards nature, compared to experiencing tourism activities in the virtual reality.

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