

*Research article***Is the *projected* landscape also *perceived*? A proposed research plan on Etna Park’s conflicting destination image****Sonia Malvica<sup>1,\*</sup>, Enrico Nicosia<sup>2</sup> and Carmelo Maria Porto<sup>2</sup>**<sup>1</sup> Department of Humanities and Social Sciences, University of Sassari, Via Roma 151, Sassari, Italy<sup>2</sup> Department of Cognitive Science, Psychology, Education and Cultural Studies, University of Messina, Via Concezione 6-8, Messina, Italy**\* Correspondence:** Email: [smalvica@uniss.it](mailto:smalvica@uniss.it); Tel: +393207697066.

**Abstract:** With the advent of social media, the online Destination Image (DI) is focal for destination development as well as a comprehensive promotion strategy. However, it has been demonstrated that the official projected destination image could not respect the tourist perceived image, generating a case of a “conflict landscape”. Such a conflict could be critical for destination promotion, especially in the actual, prominent use of social media in tourist approach and experience. Social media has, in fact, a pivotal impact upon the online user’s perception and destination development. Thus, electronic word-of-mouth content strongly influences the will to visit a destination, forcing Destination Management Organizations (DMOs) to update their image often. In the present work, we aim to present an in-progress-research on Etna Park (in Italy), a Regional Nature Park since 1987. More precisely, a web/social media analysis strategy on Etna Park’s naturalistic pathways is exposed, highlighting tourists’ feedback and perceived image. The results suggested managing any policy differences among actors (e.g., residents, Local Action Groups) engaged in Etna Park’s DI, also investigating disagreements in all the viewpoints. The results obtained in this preliminary phase of research will be the basis for planning future research, which is intended to develop a positive relationship between nature-based tourism and Etna Park as a resilient destination, recommending a coherent place storytelling.

**Keywords:** Etna; destination photography; naturalistic paths; user-generated content; projected image; perceived image

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## 1. Introduction

Sustainable development requires an integrated strategy concerning environmental, economic and social/cultural approaches. In the case of protected areas, biodiversity and sustainable development are targets of the UN 2030 Agenda's Sustainable Development Goals: a decision-making process concerning the potential conflict between nature safeguarding and human intervention is then recommended [1]. However, human activities in the area could return contrast in the territorial consciousness' development. A collaborative project should lead local actors to develop an efficient, shared place's narrative [2]. In fact, a good place image develops a positive reputation and increases tourism flow [3]; on the contrary, a non-coherent image could lead the various stakeholders to manage inconsistent strategies and consumption. Italy offers pivotal biodiversity and a prominent role in the ecosystem variety: Many Regional and National Parks preserve such a heritage and sustainability [4], which require both protection and conservation. Such a concern is crucial in the cases of volcanic sites, whose peculiar environment offers both natural and cultural landscapes, attracting a worldwide tourist interest [5]. As a case study, Etna Park ("Parco dell'Etna" in Italian) is a protected area in Southern Italy and represents the first Park established within the Sicilian reality. It is based on local economic benefits and tradition as well as natural and socio-cultural protection. For these reasons, ecotourism seems to be the key to developing Etna Park as a destination, responding to the needs of the above-mentioned sustainable project [6]. However, it has been suggested that the Mount Etna's web reputation could lack a coherent online destination image, with the consequent absence of a comprehensive promotion strategy [7].

In line with these premises, this work focuses on the territorial consciousness' development for Etna Park: More precisely, the case study will be the Etna Park's naturalistic paths, which evoke the destination's uniqueness with a peculiar landscape, developing an unmissable tourist attraction that could also evoke a naturalistic, sustainable attitude [8,9]. The aim is to present research in progress, included in a redevelopment and updating Destination Image (DI) of the Etna Park, also investigating the relationship between the projected image and the tourist online, co-created perceived image. The focus will also be on destination photography, comparing the pictures of official channels with the perceived one of visitors/tourists. "Material and Methods" section includes a short overview on the role of the DI in the social media reality, the case study and the research methodology. Results will then be reported in the "Result and Discussion" section, when our further research plan according to the results is also provided. Finally, the "Conclusions" section is intended to be a sum of final considerations and the exposition of the planned future research, in line with the challenges within the context of nature-based tourism to develop satisfying experiences.

## 2. Materials and methods

### 2.1. *The destination image in the social media world*

Tourism experience starts from strong place storytelling, that is a co-creation process in which the tourist is engaged: The more the engagement is, the more the tourist satisfaction will be [10–12]. Destination identity is, in fact, the result of a shared brand and image between the top-down institutional narratives and the bottom-up, local shaped image. That means that co-created e-narratives should be consider in order to create a destination [13]: An intervention program inserted in the tourism

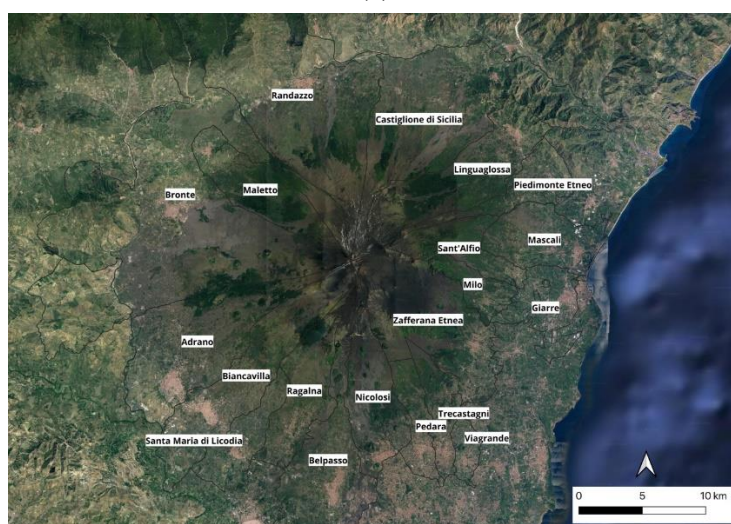
promotion should then consider the Destination Image (DI); that is, all beliefs and impressions that feed the tourist imagination [14], satisfaction [15,16] and loyalty [17]. Developed through cognitive and affective components [18], with the advent of Web 2.0, people's travel decisions are usually more influenced by User-Generated Content (UGC) than traditional contents provided by the Destination Management Organizations (DMOs) [19–22]: Accordingly, the influence of ubiquitous social media has given an essential impact to the online user's perception upon the destination development. The content of the online peer-community generates more trust in tourists than the material offered by the official territorial promotion organizations [23]. This means that the will to visit a destination is strongly influenced by social media and electronic word-of-mouth content [24], forcing DMOs to often update their image [25]. Web is also dominated by digital images, whose perception and consumption by the tourists contribute to the destination's storytelling [26]. Since the act of photographing is an essential tourist practice [27], DI incorporates photography [28,29], which starts developing tourist expectations in the pre-visit phase [24]. The contribution of photographs is confirmed by the central role of aesthetic appreciation on tourists' satisfaction and loyalty [30–33]. Regarding the relationship between UGC and DMOs contents, it has been recognized that the tourist could not end up photographing what was suggested by the previously accessed commercial materials: On the contrary, an active process of representation links the photographs proposed by the DMOs (i.e., projected image) and those taken by the tourist (i.e., perceived image), who leave the state of consumer to become a prosumer [34]. The perceived image is, in fact, the result of the tourists' personal experiences, which could generate a dissonance with the official, promoted image. Thus, tourists could not actually share and, consequently, reproduce the DI and destination photography promoted by DMOs [21,35]. That means the perceived image will not fully reflect the projected one; thus, DMOs will always urge to update and adapt their image with the feedback suggested by users [24,36]. In the present study, destination photography was analyzed according to an embodied approach. Applying embodied cognition to DI introduces the pivotal role of sensorimotor experience in evaluating a depicted environment, with consequences on the tourist judgment. It has been recognized that the beholder's sense of presence/exploration and the will to visit the represented place positively impact the evaluation of destination photography [37]. Thus, the embodied-methodological choice aimed to highlight the possible conflict between the DI produced by tourists and that conveyed by official channels.

## *2.2. The case study: Etna Park's naturalistic paths*

As a Regional Nature Park since 1987, the Etna Park includes 20 municipalities in an area of 58,095.00 hectares (Figure 1), divided into four zones with different levels of protection, making that of the highest level of protection (i.e., A area, 19'000.00 hectares) not usable for human intervention. Situated in the province of Catania in Eastern Sicily, its role is to protect and promote the landscape surrounding Mount Etna, the highest active volcano in Europe and UNESCO World Heritage site since 2013, often present in mythological works and classical literature as a symbol of otherworldly and primary forces [38], today featuring a specific territorial assessment and an internationally recognizable destination image.



(a)



(b)

**Figure 1.** Etna Park location (a) and its municipalities (b) Source: Elaboration of SM with QGIS software.

The Park represents a natural landscape whose configuration is the result of the waters flowing on the ancient lava flows. Also, the Etna municipalities are distinguished by architecture based on the use of lava stone: For instance, the ancient city center of Catania's architecture was developed with the employment of magmatic and sedimentary rocks, providing the cityscape with a peculiar bichromy [39]. The baroque style of Catania, included in the late south-eastern Sicilian baroque of the Val di Noto and also a UNESCO heritage site, is characterized by the lava rock and the presence of passage of the casting still visible and which characterizes the heritage: An example is provided by the Benedictine Monastery of San Nicolò l'Arena, where it is possible to observe the remains of lava activity, never wholly removed and which, consequently, have historically conditioned the renovation and redevelopment works. Thus, the Etna landscape is related to the "black stone", passing from the use of black volcanic lapillus in the 18th century to the plaster with red gravel and lime mortar in the 19th century [40]. These natural and architectural peculiarities, combined with traditional and culinary ones, are recognized in several Etna Park trademarks: DOC (i.e., Denomination of Controlled Origin, like Etna wine as an example of Sicilian identity: See [41]), DOP (i.e., Protected Designation of Origin,

like Sicilian pecorino, Etna prickly pear and Monte Etna oil), IGP (i.e., Protected Geographical Indication, like Etna cherry) and Slow Food Presidium (like Bronte green pistachio).

The Portal of the Italian Parks (<http://www.parks.it/parco.etna>) and the Etna Park official homepage (<https://parcoetna.it>) recognises several naturalistic pathways in Etna Park. Here it is possible to quote Sentiero Natura Monte Nero degli Zappini, the most popular and the first trail built in Sicily in 1991; 701 Pista alto montana dell'Etna, which can be traveled both on foot and by bike, consisting of a ring-path developed in the Forestry State that allows visitors to go around Mt Etna and finally reach the summit areas; 717 Case Piraio-Monte Spagnolo, on the north side of Etna, famous for the largest and most secular beech forest on Etna and also the hornitos of the 1981 flow; 723 Citelli-Serracozzo, recognized as the Mountain Fitness Trail, designed for monitoring the performance of sports visitors; 724 Pietracannone-Cubania-Sentiero Italia, which allows viewers to observe the niviere, consisting of a rectangular pit formerly used to store and press the snow transported with mules in the Etna villages during the summer; 736 Piano Dei Grilli, a Site of Community Importance (SIC) and Special Protection Area on the North-West side of Etna; and The Path of the Germplasm, created for the conservation of Etna's plant genetic heritage, also accessible for people with motor impairment and created in collaboration with the Stamperia Braille of Catania, with which a multisensory path was set up. Furthermore, a separate mention should be given to the four paths provided by the Club Alpino Italiano (CAI)'s Sentiero Italia. Among the possibilities to visit Italy from the Northeast to the Southeast, the Sentiero Italia CAI explores the whole country through more than 7000 km of naturalistic paths. The project was started in 1990 and inaugurated in 1995 and aimed to provide visitors with paths and infrastructures to recognize the peculiar environmental characteristics. Thus, the Sentiero Italia CAI conveys coherent storytelling throughout the Italian territory while preserving the specific characteristics of the various landscapes. As previously mentioned, there are four CAI pathways on Etna Park (Figure 2). Table 1 summarizes the paths according to some characteristics, such as height difference, difficulty level and Sentiero Italia CAI's signs based on the data updated between January and May 2021 on the official website of Sentiero Italia CAI (<https://sentieroitalia.cai.it>). The CAI also provides some information on the different paths (Table 1). Below, we partially report some representative elements of the pathways as mentioned in the official CAI guide [42]:

The SI V23B pathway reaches the slopes of Etna through a considerable height difference, proceeding in a southerly direction from the city of Randazzo towards the borders of the park. The ascent of Mount Piluso (37°49'43.1"N, 14°56'38.6"E) and Mount Spagnolo (37°49'32.7"N, 14°57'10.9"E) is planned, and the crossing of the Maletto Wood and Vanelle Cave's Mountain leads to the Forest Shelter of Mount Scavo (37°46'23.4"N, 14°57'09.7"E). Overall, the route offers views of vineyards and olive groves in the Randazzo area. On the slopes of Mount Pomiciaro (i.e., an old extinct crater named from the apple tree, "pedi i puma" in Sicilian language), really close to its "twin" Mount Zoccolaro (37°44'05.1"N, 15°00'13.9"E), a dagala is present, that is an island of vegetation between the lava. Here, there are juniper shrubs, with balsamic properties and known for gin production. Then, it is possible to come across broom bushes near Mount Piluso (37°49'43.1"N, 14°56'39.1"E) and forests of birch, chestnut, pine, locust and laburnum trees on the road to Mount Maletto (37°47'39.0"N, 14°56'26.6"E). The pathway also offers several Etna caves, the visit of which requires spelescope equipment. There are remains of the 1981 lava flow, which threatened Randazzo.

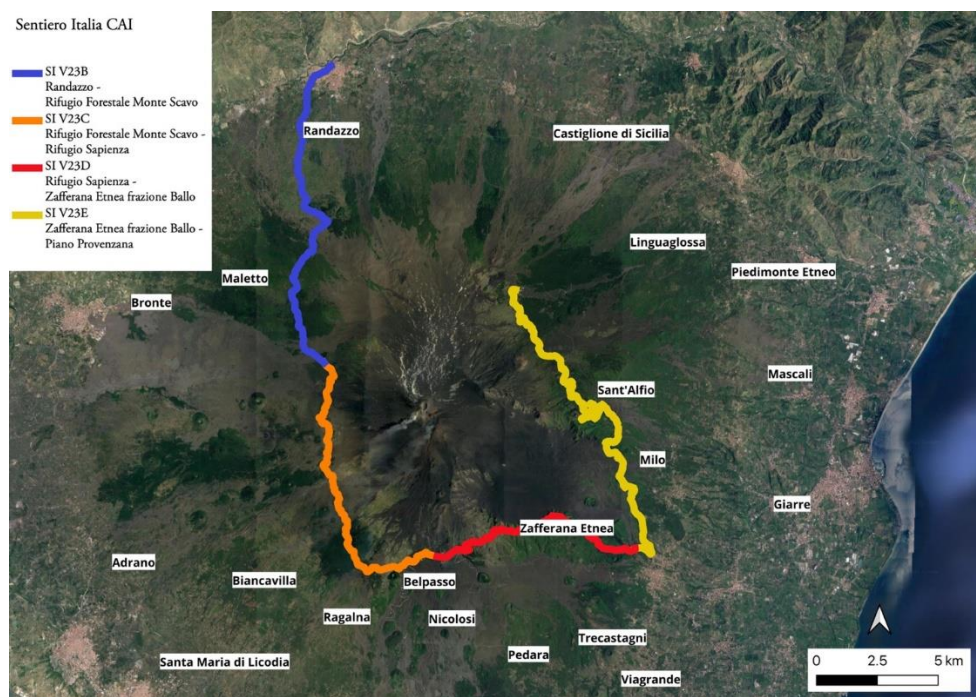
The Forest Shelter of Mount Scavo represents the start point of the SI V23C pathway. Through the Etna Altomontana, the stage reaches various lava flows (including Mount Nunziata's Cave: 37°45'48.0"N, 14°57'12.6"E), various pine-type woods, a pagghiaru (i.e., ancient shelter for shepherds)

and the votive shrine of San Giovanni Gualberto (inside a shelter is currently closed). The path runs alongside the Nuova Gussonea Botanical Garden (37°41'45.8"N, 14°58'01.3"E), founded in 1979. The name is a tribute to Giovanni Gussone, a scholar of Sicilian flora, and takes up the old project of the Gussonea Botanical Garden by the botanist Fridiano Cavara. In addition to carrying out research activities, the Garden contains woodland communities typical of the volcano context; it also has a greenhouse for cultivating and acclimatizing various plants to be included in their respective habitats. The final destination is the CAI Giovannino Sapienza Refuge. Regarding the variety of vegetation present, we can mention the Etna broom, which is an endemic plant characteristic for its appearance in lava landscapes; the *Isatis tinctoria*, whose diffusion starts from Asia due to the dyeing properties of its shoots; the Sicilian astragalus ("spinedda" or "cuscino della suocera" in Sicilian language), with antiviral and antioxidant properties. Among the evidence of the volcano's activity, we remember the Cave of the Arches (37°43'40.1"N, 14°57'57.5"E) as a result of the 1610 eruption.

The SI V23D pathway leads to Ballo, in Zafferana Etnea and almost completely downhill and crosses the east side of Etna. However, it is difficult to walk through, especially in winter, and requires experience in hiking. One of the natural attractions is the Bove Valley (37°41'59.1"N, 15°03'14.3"E), where the main eruptions' lava flows have poured and continue to pour today. The Bove Valley consists, in fact, of a notable depression on the eastern side of Etna, which testifies to an evolution of the volcano that began 110,000 years ago. Zafferana Etnea municipality is reached through a stretch of wood. The route has a beautiful view of the cited Bove Valley, the summit craters and the Peloritani Mountains, which reach up to the famous tourist destinations of Messina province, such as Taormina and Giardini Naxos. It is possible to reach the Sentiero dell'Acqua Rocca degli Zappini (37°42'19.3"N, 15°02'49.6"E), home to a centuries-old beech tree and a part of basalt, the remains of an ancient waterfall.

Zafferana Etnea represents the departure of the last path, SI V23E, which leads to Piano Provenzanza. Here, through a considerable height difference, a pagghiaru is visible. Among other attractions, it is possible to observe a niviera, used in the past for the collection and trading of ice. The Pietracannone Cave is also crossed, whose refuge is currently not accessible, and the Case Paternò Castle, the refuge of the Department of Rural and Territorial Development, can be seen. It is also possible to explore the Cubania wood, characterized by mixed vegetation and a prevalence of larch pine. From the Citelli refuge of the CAI, it is possible to continue along a detour to reach the Sartorius Mountains, of considerable geological and botanical interest. By passing downstream from the Mount Baracca refuge, Piano Provenzana (that is a tourist resort as well as starting point for trekking routes) is finally reached. Within this Path, we can remember the Ilice di Carlino (carrinu in Sicilian language) (37°43'06.1"N, 15°05'45.4"E), that is a 700-year-old holm oak among the oldest trees on Etna; the presence of a dagala within the Bove Valley; the remains of the lava flow of 1852 (which threatened the city of Zafferana Etnea); a magnificent Etna broom on the slopes of Monte Caliato; a detour towards the Mount Fontane viewpoint, which offers a view of the Valle del Bove, the coast and the summit craters; the Niviera di Don Puddu (or Tacca murata); the view of the Mount Frumento delle Concazze (37°46'13.5"N, 15°02'28.6"E), i.e., the largest secondary crater of the volcano; the bottoniera (Mounts Sartorius pathway: 37°46'31.7"N, 15°03'24.3"E), consisting of an alignment of seven craters formed in 1865 following a five-month volcanic activity, and frequented during the touristic season by a shepherd who makes his local products available to visitors. The path then continues with the following CAI itinerary, the SI V23F, which enters the Messina province, leaving the context of Etna Park.





**Figure 2.** Sentiero Italia CAI pathways within the Etna Park area. Source: Elaboration of SM from CAI pathways with QGIS software.

**Table 1.** Data on Sentiero Italia CAI pathways within the Etna Park area [42].

Path	Departure (Italian names)	Arrival	Length (Km)	Altitude difference (m)	Difficulty level	CAI's signs
SI V23B	Randazzo	Rifugio Forestale Monte Scavo	15.6	+980 0	E	good
SI V23C	Rifugio Forestale Monte Scavo	Rifugio Sapienza	14.3	+478 -256	E	good
SI V23D	Rifugio Sapienza	Ballo, Zafferana Etnea	11.5	+312 -1479	EE	very good
SI V23E	Ballo, Zafferana Etnea	Piano Provenzana	21.7	+1256 -214	E	very good

Notes: E = hiking level; EE = expert hiking level.

### 2.3. Data collection

With the aim of investigate the Etna Park's online DI, the official communication channels (i.e., the official website and Facebook page) and Instagram UGC were analyzed. Specifically, the official website was investigated in its accessibility and contents within a comparative analysis involving all the Sicilian, Regional parks in Sicily. Then, users' comments on the Facebook page were monitored for general feedback. Finally, in line with the key role of aesthetics in tourism marketing [19], a visual content analysis (i.e., a method used to analyze perceived images' components through visual content) on Instagram UGC was performed, considering the most recent posts corresponding to the available hashtag, paying particular attention to contents consistent with a naturalistic paths-vision of the Etna

Park. Following the postmodern tourist's active role as prosumer [3], photographs constitute a valid investigation tool to analyze the perception of the destination, showing any dissonance between projected and perceived images: Focus will then be to photographs with an exploratory perspective, i.e., the evidence of the photographer's exploration of a naturalistic path.

### 3. Results and discussion

*Official webpage.* In order to evaluate the online projected image, the official webpages of the Regional Parks in Sicily were analyzed, evaluating, in particular, the multilingual accessibility, the presence of the paths list and the presence of sections dedicated to reception/hospitality and raising visitor awareness on environmental sustainability issues (Table 2).

**Table 2.** Comparison of the Sicilian Regional Parks' official webpages.

Park	URL	Language(s)	Environmental education dedicated section	Naturalistic paths list	Reception and hospitality dedicated section
Etna	<a href="https://parcoetna.it">https://parcoetna.it</a>	Italian	no	yes	no
Alcantara River	<a href="http://www.parcocalcantara.it">http://www.parcocalcantara.it</a>	Italian English French German	yes (Vivere il Parco/Educazione ambientale)	yes	yes
Madonie	<a href="https://www.parcodellemadonie.it">https://www.parcodellemadonie.it</a>	Italian	yes (Visitare il Parco/Centri Educazione Ambientale)	yes	yes
Nebrodi	<a href="http://www.parcodeinebrodi.it">http://www.parcodeinebrodi.it</a>	Italian English French German	yes (Natura e Territorio/Educazione ambientale)	yes	yes
Monti Sicani	/	/	/	/	/

*Notes:* Access on 20 July 2023.

An immediate comparison reveals, on the Etna Park case, the absence of the webpage version in a language different from Italian and scarce information about the accommodation facilities; the topic of environmental education is not addressed as well. The type of photos and videos present on the site in the "Media" section was also focused to investigate the DI further: In sum, there are only 4 photos, with 2 pictures for Mount Etna, and a video always focused exclusively on the volcano. Projected photography, therefore, plays on the reality of Mount Etna without presenting an exploratory vision of the paths and possibilities that tourists have in terms of usability and access.

*Facebook official page.* Analyzing user comments over the past year, general negative feedback is reported. Overall, users claimed: Disservice of communication channels (e.g., reservation number); outdated or inadequate policies; lack of expertise on information relating to tourist experience; impossibility of using the shelters; failure to comply with the rules (e.g., entry of motorcycles into



areas with exclusively pedestrian access); inadequate digitization; presence of waste; survival risk of wildlife; lack of a comprehensive DI (e.g., a projected image centered only on the woods). We further investigated shelter's accessibility issues searching for feedback from sports tourists, quite applicable to the nature path of the Park. During an interview with Serena Acquaviva, i.e., a professional climber and competition judge based at the University Sports Center (CUS) of Catania, it was highlighted that Etna Park is not full of climbing crags, also confirming the impossibility of accessing shelters. According to these results, future research should involve all the stakeholders to discuss a coherent development strategy between the local actors, highlighting any fundamental discrepancies between the projected and perceived image associated with an ecotouristic approach to the park.

*Instagram UGC content.* A visual content analysis was carried out using Instagram pictures uploaded by non-official accounts. On 10 July 2023, 8 hashtags were related to the Etna Park: #etnapark, #etnaparkrun, #etnaparke #etnapark2014, #etnapark2017, #etnaparkacquafun, #etnaparks, #etnaparkour. Among these, the most used were #etnapark (post: 100+) and #etnaparkrun (post: < 100), with the latter related to a specific, past event. Thus, the most recent 100 posts (from 24 May 2021 to 27 May 2023) with the #etnapark hashtag were extracted with 4K Stogram software for the visual content analysis. As anticipated, our analysis focused on the observer's need to feel bodily present in the represented place (i.e., embodied approach). A previous interdisciplinary study [43] suggested isolating mostly two factors: The picture perspective and the people's presence/absence in the depicted environment. Accordingly, in the present study the pictures (which cannot be shown in this work for copyright reasons) were categorized into different folders, using Nvivo™ for coding and identify the specific embodied-factors related to the Park's natural landscape: The presence of people (i.e., "People" factor), and the depicted environment's perspective, distinguishing the case when the beholder's target is physically reachable/an exploration in progress is suggested (i.e., "Explorative" factor), and a landscape with distant objectives and denoting a state of passive observation (i.e., "Contemplative" factor). Also, since Mount Etna is usually considered the main landmark of the Park, we focused on case with the volcano peak as a component of the picture (i.e., "Etna" factor) or as main objective (i.e., "Solo Etna" factor). In line with the aims of this research, other factors were considered as outlier cases (i.e., "NA" factor). A picture could be included in different factors (Figure 3). Duplicates or extremely similar photos (belonging, for example, to the same author who takes the same photo from different angles) were excluded from the analysis.

Table 3 shows the results of the images coding. In sum, the UGC related to Etna Park presents limited content and is not directed towards a well-shared DI, which could suggest the absence of a robust projected image that users could use to build their own perceived image, which instead is currently under construction, presenting an undefined landscape. Accordingly, the Instagram UGC suggested a discrepancy between tourists and official pages' destination photography: More precisely, results suggested the tourists' preference for an explorative perspective with no people presence. This is coherent with previous research, which reported, in proximal-perspective pictures, a preference for scenario without people [43]. Thus, an explorative perspective does not need people's presence, as the beholder looks at the picture through a first-person point of view. Other studies previously investigated the people factor in photos of natural environment, highlighting a general preference for scenarios without people [31,44,45]. Also, the Mount Etna's peak is predominant in distal pictures, such as its presence could help to identify a landscape in distal perspective; on the contrary, explorative engagement showed a preference for natural paths, and the mountain's peak is not always needed.



**Figure 3.** Examples of images relating to Etna Park, copyright free and not included in the analyzed sample. (a) “Explorative x Etna” case, i.e., the represented environment is natural, Etna’s peak is present but not as the main element and the perspective indicates a target that the observer can physically explore. (b) “Contemplative” case, i.e., a non-natural environment in which Etna is present as a target not physically reachable by the observer. (c) “Etna solo” case, i.e., a picture centered exclusively on Etna’s peak. (d) Image “Explorative” case, i.e., a natural scenario without Etna’s peak displayed and with a perspective consistent with the exploration of the observer. Source: <https://unsplash.com> (Authors: (a) (b) Giuseppe Famiani; (c) (d) Piermanuele Sberni).

**Table 3.** Coding of the Instagram UGC related to the #etnapark hashtag.

Coding	Number of pictures	Comments
People	13	e.g., children in a playground, close ups, trekking groups
Explorative	35	only 3 pictures with people presence
Contemplative	12	/
Etna	7	/
Solo Etna	9	Mainly photos of an eruption in progress
Explorative x Etna	12	/
Contemplative x Etna	8	/
NA*	19	e.g., pet, restaurants

Notes: Data extracted on 10 July 2023. \* Factors not considered in this study.

#### 4. Conclusions

The present work represents the first phase of an interdisciplinary investigation to assess the state of Etna Park’s DI, as well as the absence of a consolidated DI of the naturalistic paths. Our visual methodology focused on destination photography following an embodied approach, which investigates the observer’s sense of embodied presence through two factors [43]: 1) The perspective (i.e., proximal/distal, here called explorative/contemplative) and 2) the people’s presence/absence. Results confirmed a favorable tourist judgment for photographs with a proximal perspective and no people. Finally, we highlighted the presence of such components in the UGC but no in the projected image (e.g., DMO’s materials): This difference could lead to a conflict within the DI. We also investigated the role of Etna as a landmark: Results suggested a non-predominant role of the volcano, with an overall tourists’ imaginary directed to the pictures of Etna Park’s naturalistic pathways, which should enhance engagement on the pictures’ beholder.

To the best of our knowledge, no studies so far have investigated the role of DI in Etna Park's naturalistic storytelling by comparing projected and perceived DI following the embodied cognition approach. Further research should lead to investigate the effect of other factors upon the pictures beholder's engagement, with the consequent desire to visit what is represented. In line with the role of both residents and visitors' perception in the creation of an ecotourism project [46], Etna Park Pro Locos and Local Action Groups (LAGs)'s engagement in the DI definition is strongly recommended. A Pro Loco represents an association included in the National Union of Pro Loco of Italy (established in 1962): Its objective is to develop the related municipality through the defense and promotion of tangible and intangible heritage, thus inserting their strategy also in the tourism sector [47]. Instead, LAGs are local organizations engaged in bottom-up rural development through the combined strategy of public and private entities [48]. Also, since memories are usually associated with place and affect the final judgment [49–51], further studies should also include a comparison between participants who have visited the Etna Park or not, focusing only on Italian individuals to isolate the cultural variable. The involvement of all the stakeholders should lead to an empowering strategy applied in the non-urban areas to highlight any non-coordinate plans between the local actors. In the case of the protected areas, the effects of such multiple human interventions and environmental perception need a specific investigation. In sum, the objective of the exposed research is to highlight the pivotal role of a coherent place storytelling of Etna Park's naturalistic paths, which could lead to a solid DI. In line with the tourism adaptive system's configuration [52], ecotourism promotion needs a responsible, sustainable awareness that is developed through a coherent and valid DI [53]: accordingly, to insert the visitors' feedback in the place branding is recommended, especially in the era of such prominent social media use [33] that has redefined the tourist approach and experience [54]. An investigation of the relationship between nature-based tourism and Etna Park as a protected area as well as resilient destination is then recommended, starting from the local actor's shared vision that we intend to investigate through destination image and photography, which should lead to a strong, co-created landscape.

### **Use of AI tools declaration**

The authors declare that they have not used Artificial Intelligence (AI) tools in the creation of this article.

### **Authors contribution**

SM wrote the “2. Materials and methods” and “3. Results and Discussion” sections; EN wrote the “4. Conclusions” section; CMP wrote the “1. Introduction” section. All authors contributed to manuscript revisions, read and approved the submitted version.

### **Conflict of interest**

The authors declare no conflicts of interest for this manuscript.

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