

Research Article (Araştırma Makalesi)

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Identifying the dynamics that make attractive the valley landscapes for hiking: Cappadocia Zemi Valley (Türkiye)

Doğa yürüyüşünde vadi peyzajlarını çekici kılan dinamiklerin belirlenmesi: Kapadokya Zemi Vadisi (Türkiye)

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ABSTRACT

Objective: The changing living conditions of today's society due to rapid urbanization have brought about the need for physical and spiritual renewal. In this context, people who want to socialize, discover new places, and escape their daily routines are increasingly inclined toward tourism and recreation activities. Among these, nature walks stand out as a popular option. This study aims to identify the distinguishing characteristics of Zemi Valley, one of the valleys in the Cappadocia, by determining its natural and cultural landscape features and examining visitors' perceptions and emotions regarding these features during nature walks.

Material and Methods: The main material of the study is the Zemi Valley. The method of the study consists of literature review, field study to determine natural and cultural landscape features, observation of participant behaviors by participating in a hiking activity in the valley, survey study to determine the perceptions and feelings of participants about the hiking experience, and statistical analysis of the surveys.

Results: Participants have different motivations for hiking, which can differ based on gender. The results indicate that the valley possesses unique landscape features that evoke positive emotions and enhance the hiking experience.

Conclusion: Based on the findings, recommendations are provided to contribute to planning studies aimed at promoting, conserving, and ensuring the sustainable use of the valley's unique qualities.

ÖZ

Keywords: Nature walking, Nevşehir, protected areas, recreation, tourism

Anahtar sözcükler: Doğa yürüyüşü, Nevşehir, korunan alanlar, rekreasyon, turizm

Amaç: Günümüz toplumunun hızlı kentleşmeyle birlikte değişen yaşam koşulları, fizikal ve ruhsal olarak yenilenme ihtiyacını beraberinde getirmiştir. Özellikle kentlerde doğayla etkileşimi azalan insanlar bu bağı kurmak için doğaya dayalı aktivitelere yönelmektedir. Bunlar içerisinde de doğa yürüyüşleri popüler bir seçenek olarak öne çıkmaktadır. Bu çalışmada Kapadokya Bölgesi vadilerinden biri olan Zemi Vadisi'nin doğal ve kültürel peyzaj özelliklerinin, ziyaretçilerin doğa yürüyüşü sırasında bu özelliklere ilişkin algılarının ve duygularının ve duygularının belirlenerek vadide farklı karakteristik özelliklerin ortaya konulması amaçlanmıştır.

Materyal ve Yöntem: Çalışmanın ana materyalini Zemi Vadisi oluşturmaktadır. Çalışmanın yöntemi literatür taraması, doğal ve kültürel peyzaj özelliklerini belirlemeye yönelik arazi çalışması, vadide yürüyüş etkinliğine katılarak katılımcı davranışlarının gözlemlenmesi, katılımcıların yürüyüş deneyimine ilişkin algı ve duygularını belirlemeye yönelik anket çalışması ve anketlerin istatistiksel analizi aşamalarından oluşmaktadır.

Araştırma Bulguları: Katılımcılar doğa yürüyüşü yapmada cinsiyete göre değişiklik gösterebilen farklı motivasyonlara sahiptir. Vadinin, doğa yürüyüşünde katılımcılar üzerinde farklı pozitif duyguları uyandıran ve yürüyüş deneyimini zenginleştiren karakteristik peyzaj özelliklerinin olduğu belirlenmiştir.

Sonuç: Elde edilen bulgular sonucunda vadinin özgün niteliklerinin tanıtılması, korunması ve sürdürilebilir kullanımına yönelik bölgede yapılacak planlama çalışmalarına katkı sağlayacağı düşünülen öneriler sunulmuştur.

INTRODUCTION

Today, urbanization and rapid population growth have considerably altered people's lifestyles and daily routines. City dwellers spend most of their time in enclosed environments such as homes, workplaces, and schools. This fast-paced and monotonous urban lifestyle leads to physical and mental fatigue. In response, people increasingly seek opportunities to escape daily stress, reconnect with nature, and rejuvenate through recreational and tourism activities. Rural areas, with their tranquil environments and natural beauty, have become prominent destinations for nature-based recreational activities, which continue to increase and diversify in type and scope (Aklibaşında et al., 2012; Çelik Çanga & Şenay, 2023). Among these diverse activities, nature walking -including both trekking and hiking- has gained widespread popularity as a form of active engagement with the environment.

In the literature, "trekking" is defined as walks organized in accordance with age groups and with limited time in natural conditions that show certain difficulties and characteristics (Kasalak & Sarı, 2023; Topay, 2003). Trekking involves moving from one point to another in nature and is generally a light-paced walk; however, the duration and intensity may vary depending on the difficulty level of the designated route (Şenel, 2023). The main purpose of trekking is to enjoy nature, closely interact with the environment and reach certain places such as mountain peaks, lakes, or natural valleys (Nugroho & Winarto, 2024). Conversely, "hiking" refers to shorter, single-day nature walks conducted on forest roads, in wild but safe areas, or within designated natural sites (Ardahan & Mert, 2013). Hiking, which means daily nature walks/nature trips that start in the morning and end in the evening, is intertwined with tourism (Akkuş & Güllü, 2022). Being a low-level adventure activity makes it popular and offers significant tourism value worldwide (Molokač et al., 2022).

According to Aydıngün (1997); nature walk is a nature sport that can be done only for walking purposes or as a means to do another nature-based sport (Ergüven, 2022). An important feature of hiking is the discovery of natural beauties and monuments. The focus of nature exploration is the topographic and hydrological features of the landscape, flora and fauna, geological development of the area, special geological formations, and nature protection (Molokač et al., 2022).

Nature walks offer individuals the opportunity to be in touch with nature, while also providing physical activity opportunities, thus promoting a healthy life. While allowing individuals to relax mentally and physically, they also provide an opportunity to escape from the mechanical and congested lifestyle brought by modernity (Atari & Feldman, 2023). Studies have demonstrated that nature experiences reduce stress levels, enhance mental health, improve cognitive performance, strengthens psychological resilience, and increase overall life satisfaction (Ardahan, 2012; Bratman et al., 2012; Stier-Jarmer et al., 2021; Karabulut, 2024). In addition, nature walks help people feeling happier and more peaceful by providing opportunities for social interaction and in-group communication (Marselle et al., 2019; Huber et al., 2023).

In this context, tourism activities and movements focused on trekking, hiking and mountain climbing are becoming widespread worldwide. Türkiye has serious opportunities in this field due to its cultural heritage and diverse geographical resources (Döner & Doğan, 2022). One of Türkiye's most renowned regions in this regard is Cappadocia, distinguished by its extraordinary geological formations, fairy chimneys, rock-carved churches, and deep-rooted cultural history. Cappadocia Region is the area covered by the provinces of Nevşehir, Aksaray, Niğde, Kayseri and Kırşehir. The narrower area, which is called the Core Cappadocia Region, consists of Göreme, Uçhisar, Ürgüp, Avanos, Derinkuyu, Kaymaklı, İhlara and its surroundings (Anonymous, 2024a; Belber & Erdoğan, 2019). Located within the Rocky Cappadocia subregion, Göreme stands out as the focal point for nature and cultural tourism. Its unique landscape, which is recognized by UNESCO, offers various valleys ideal for nature walks, one of which is Zemi Valley.

Despite the growing interest in nature-based tourism in Cappadocia, there is a significant lack of academic research focusing on the natural and cultural landscape features of valleys, particularly the Zemi Valley. This study aims to fill this gap by providing a comprehensive analysis of the valley's features and visitor experiences, thus contributing to the literature on sustainable nature-based tourism and landscape assessment. In line with these goals, the study seeks to answer the following research questions:

- What are the distinctive natural and cultural features of Zemi Valley that support nature-based recreation?
- How do visitors perceive the landscape qualities and recreational value of the valley?
- What recommendations can be made to ensure the sustainable use and conservation of Zemi Valley within the tourism context?

By integrating landscape assessment with visitor perceptions, this study provides valuable insights for policymakers, planners, and tourism professionals aiming to balance conservation with recreational use in nature-sensitive areas like Cappadocia.

MATERIALS and METHODS

Study area

This research was approved by Nevşehir Hacı Bektaş Veli University Scientific Research and Publication Ethics Committee on 05.02.2025 with document number 2025.01.24. The main material of the study is the Zemi Valley located in Göreme, one of the important tourism centers of the Cappadocia Region (Figure 1). Göreme is a town in the Central District of Nevşehir and is 12 km away from the city center. The Zemi Valley spans an approximate length of 5.8 km and can be accessed from a section of the Nevşehir-Ürgüp Highway between Uçhisar and Ortahisar, as well as from Museum Street in central Göreme.

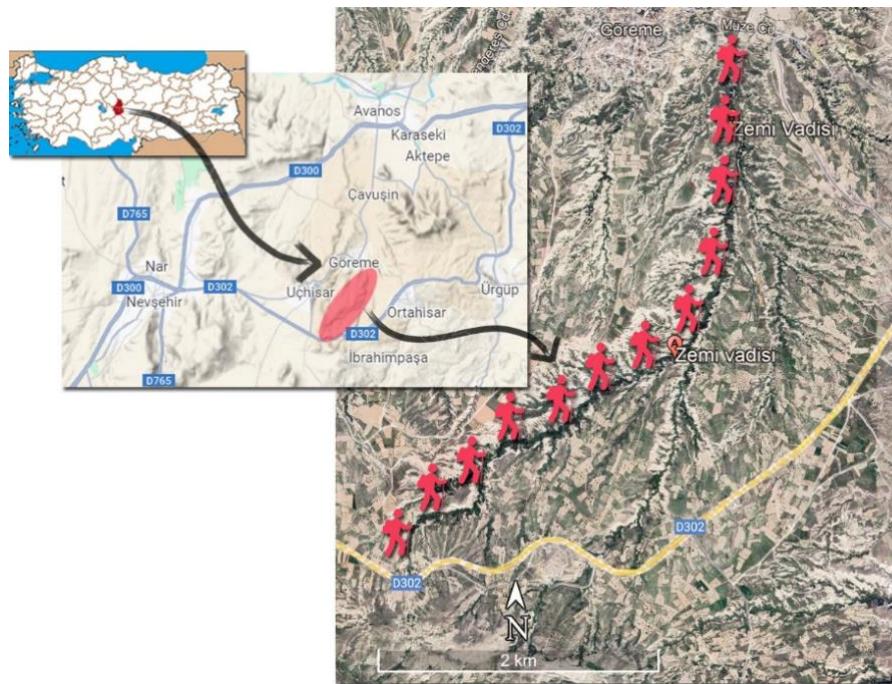


Figure 1. Location map of Zemi Valley.

Sekil 1. Zemi Vadisi konum haritası.

Methods and stages of the study

Given the high intensity of tourism and recreation activities in the region, valley landscapes draw attention with their unique ecological and visual features. This study consists of four stages to analyze the elements that make Zemi Valley attractive for nature walks, based on user impressions and experiences:

In the first stage of the study, participation was ensured in a group hiking event organized in the Zemi Valley in June. The natural and cultural landscape features of Zemi Valley were determined in detail through on-site examinations. The observations focused on the valley's topographic structure, surface formations, floristic elements (dominant and remarkable species), fauna, hydrological features, microclimatic characteristics, landscape beauty and difficulty level of the trail (slope, surface condition, walking comfort). In order to document all these features, notes were recorded, and photographs were taken systematically along the walking route. During this event, the activity was directly experienced, and participant behaviors were observed.

In the second stage, following the field activity, office-based analyses were conducted to evaluate the observational notes and photographs. Based on these evaluations, a structured questionnaire form was developed to assess participants' experiences and impressions of the valley. The form consists of three parts: (1) questions aiming to determine the demographic characteristics of the participants, (2) their nature walk tendencies and the factors affecting these tendencies, (3) their perceptions and feelings about their walks in Zemi Valley. The survey questions were prepared in a multiple-choice, open-ended and 5-point Likert-type grading format in accordance with the information desired to be obtained. In addition, in order to determine the areas that the participants liked the most on the walking route, 30 photographs with different qualities were selected from 300 photographs taken with a semi-professional camera during the event and the participants were asked to choose the ones they liked the most. Then, the survey was conducted with 30 volunteers among the people who participated in the hiking event.

In the third stage, the collected data were transferred to the SPSS 21.0 program and the percentages of the answers to the options of the multiple-choice questions and the frequency, percentage and score averages of the graded questions were analyzed.

Finally, in the fourth stage, the Chi-Square test was applied to examine the relationships between the gender, age and education status of the individuals and their reasons for hiking, the emotions they felt during hiking and the factors that affected them during hiking.

In the light of the findings, the landscape character of the valley, its ecological and recreational importance were revealed, and planning suggestions based on the sustainability of the valley within the balance of protection and use were presented.

RESULTS

Natural and cultural landscape characteristics of Zemi Valley

Cappadocia is home to some of the most distinctive surface formations in the world, shaped by volcanism, tectonic activity, and erosion (Dirik, 2009). Göreme is located in a volcanic region between Erciyes and Hasan Mountains in the Central Anatolia Region. Göreme, known as the capital of Cappadocia, has a geography consisting of plateaus, high hills, valleys and high plains separated by these valleys (Anonymous, 2024b). As a result of the erosion of the soils formed by volcano tuffs by surface waters, narrow and deep valleys have formed. The deep side valleys in this region covered with volcanic tuffs, opening to the Kızılırmak Valley from the south and north; constitute the main recreational areas of the region with their rich vegetation and water resources as well as their geological, geomorphological and archaeological values (Anonymous, 2024c).

Zemi Valley is entered from Uçhisar from a steep slope formed by tuff layers. The slopes surrounding the valley have an undulating geomorphological structure shaped by erosion processes caused by surface waters. These unique characteristics provide an aesthetic contribution to the natural landscape of the region and create attractive views for visitors (Figure 2).



Figure 2. Views from the entrance of the Zemi Valley on the Uçhisar side.

Şekil 2. Zemi Vadisi'nin Uçhisar tarafındaki girişinden görünümler.

The valley surroundings and the upper part of the slopes are dominated by steppe vegetation. However, the microclimate characteristics of the valley differentiate the flora in the valley and create a dense green texture, providing a rich vegetation (Figure 3). In the valley, where broad-leaved trees are dominant, fruit trees such as *Malus* sp., *Prunus* sp., *Pyrus* sp., *Cydonia* sp., *Crataegus* sp., *Juglans* sp., *Amygdalus* sp. and *Elaeagnus* sp., as well as species such as *Populus* sp., *Salix* sp., *Rhus* sp. and *Tilia* sp., are also found.

Along the hiking route, flowering shrub species such as *Colutea cilicica*, *Viburnum opulus*, *Berberis crataegina* and *Rosa canina*, as well as *Vitis* sp., which plays an important role in the region's agricultural activities, are noteworthy. *Iris* sp. flowers planted in various parts of the valley offer impressive views to the visitors who are hiking. In addition, the majority of the plants detected in the valley consist of species that also attract attention with their autumn leaf coloration. This gives the valley rich and impressive appearances in terms of color at different periods of the year.



Figure 3. Views from the vegetation of Zemi Valley.

Şekil 3. Zemi Vadisi'nin bitki örtüsünden görünümler.

In addition to the vegetation that makes the valley different, the geomorphological shapes of the slopes that form the backdrop behind the plants offer impressive views specific to the region. Passing through rocks shaped by volcanic tuffs and natural rock tunnels in places adds a unique excitement to the hiking experience.

The hiking trail is narrow and uneven, with a moderate difficulty level. The path has a rolling structure in some areas and wooden bridges have been placed at some points to facilitate the passage. Streams form in the valley from time to time due to rainfall, while, in drier periods, only puddles or thin water channels are observed along the route. Since no source has been reached in the literature regarding the animal species in the Zemi Valley, no scientific determination has been made regarding the fauna. However, the different bird sounds heard throughout the hike indicate that the region may have a rich bird fauna.

Survey findings of valley hiking

Among the 30 survey participants, 60% were female and 40% male. The ages of the participants ranged from 25 to 60, of which 23.3% between the ages of 25-34, 53.4% between the ages of 35-44, 13.3% between the ages of 45-54, and 10% over the age of 55. The majority held undergraduate (56.7%) and postgraduate (36.7%) degrees.

According to the question asked to the participants residing in Nevşehir to determine their interest in nature walks, it was determined that 70% of the participants walk in nature when they find the opportunity in their free time. Participants generally prefer the valleys in the Göreme, Uçhisar, Ortahisar, Ürgüp regions, but they also go on nature walks in areas of natural, historical or cultural importance such as the banks of the Kızılırmak River in Avanos and the Cappadocia region.

When the participants were asked "What are your reasons for hiking?", it was determined that the most important factors in hiking were stress relief and relaxation ($\bar{X}=3.87$; 73.3%). In addition, valuing being in touch with nature ($\bar{X}=3.80$; 70%) and desire to discover new places ($\bar{X}=3.77$; 70%) stand out as strong sources of motivation in performing this activity. In addition, it was determined that hiking activities were done as a social activity for purposes such as spending time with relatives ($\bar{X}=3.70$; 70%), observing nature ($\bar{X}=3.70$; 66.7%) and healthy living ($\bar{X}=3.57$; 66.7%) (Table 1, Figure 4).

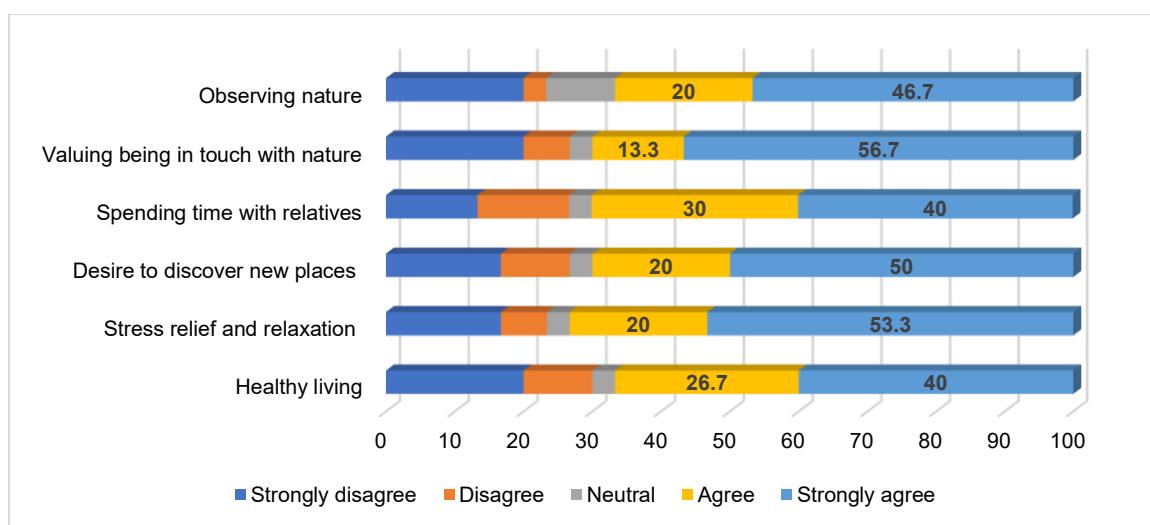


Figure 4. Percentages of participants' responses to the factors that influence their nature walks.

Şekil 4. Katılımcıların doğa yürüyüşü yapmalarındaki etkenlere verdiği cevap yüzdeleri.

Table 1. Factors contributing to participants' nature walks**Çizelge 1.** Katılımcıların doğa yürüyüşü yapmalarındaki etkenler

What are your reasons for hiking?	<i>Frequency</i>					\bar{X}
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
<i>Healthy living</i>	6	3	1	8	12	3.57
<i>Stress relief and relaxation</i>	5	2	1	6	16	3.87
<i>Desire to discover new places</i>	5	3	1	6	15	3.77
<i>Spending time with relatives</i>	4	4	1	9	12	3.70
<i>Valuing being in touch with nature</i>	6	2	1	4	17	3.80
<i>Observing nature</i>	6	1	3	6	14	3.70

A survey was applied to participants; 53.3% of them were hiking in Zemi Valley for the first time, while 46.7% had hiked in the valley before. When the participants were asked about the feelings they felt while hiking in the valley, the highest scores were given to the options of spiritually relaxing ($\bar{X}=3.97$; 76.7%) and pleasing ($\bar{X}=3.97$; 76.6%). The mean scores of the other answers were also quite high, and the participants found the valley to be refreshing ($\bar{X}=3.90$), interesting ($\bar{X}=3.80$), quiet/calm ($\bar{X}=3.80$), exciting ($\bar{X}=3.70$), funny ($\bar{X}=3.67$) and mysterious ($\bar{X}=3.27$), respectively (Table 2).

Table 2. Emotions felt by participants during the Zemi Valley walk**Çizelge 2.** Zemi Vadisi yürüyüşünde katılımcıların hissettiği duygular

What did you feel while hiking in the Zemi Valley?	<i>Frequency</i>					\bar{X}
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
<i>It was spiritually relaxing.</i>	7	0	0	3	20	3.97
<i>It was interesting.</i>	6	2	1	4	17	3.80
<i>It was pleasing.</i>	6	1	0	4	19	3.97
<i>It was exciting.</i>	5	3	2	6	14	3.70
<i>It was refreshing.</i>	7	0	0	5	18	3.90
<i>It was calm.</i>	4	2	3	8	13	3.80
<i>It was exhausting.</i>	7	10	6	3	4	2.57
<i>It was funny.</i>	7	0	1	10	12	3.67
<i>It was mysterious.</i>	3	8	5	6	8	3.27

Among the options, the parameter of finding the hiking experience exhausting received a score of 2.57. However, it was observed that the rate of those who answered 'agree' and 'strongly agree' to this question was low (23.3%) (Figure 5).

In order to determine the observations of the participants who walked in the Zelve Valley, which has different characteristics from the regional landscape character, the question 'What caught your attention or impressed you while walking in the Zemi Valley?' was asked. According to the survey results, the landscape features that attracted the participants' attention the most were the shapes of the hills surrounding the valley and the tuff formations ($\bar{X}=3.93$) and the floristic features ($\bar{X}=3.89$) (Table 3).

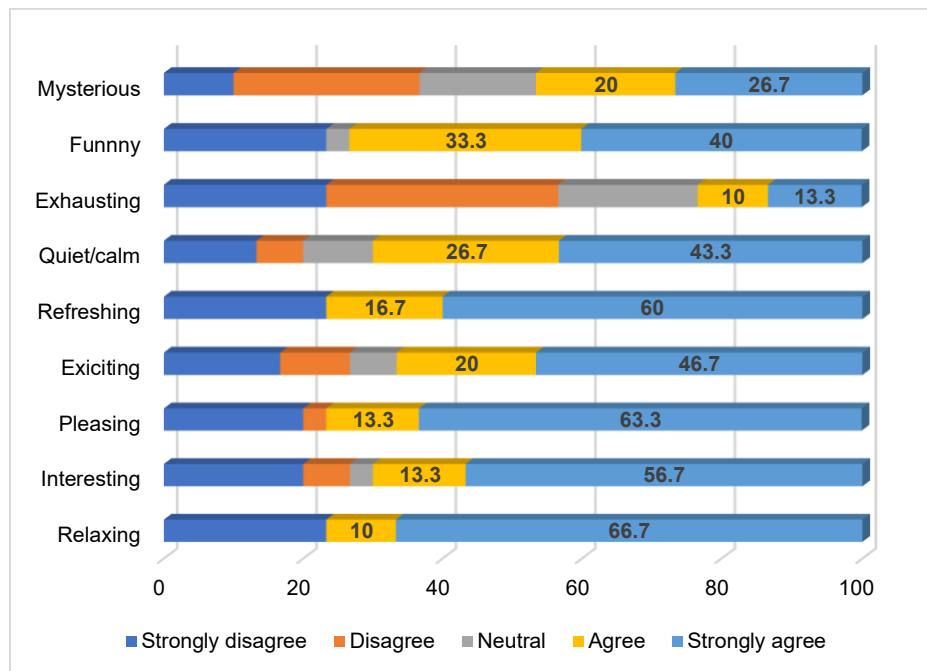


Figure 5. The acceptance rate of participants' emotional options in the Zemi Valley walk.

Şekil 5. Zemi Vadisi yürüyüşünde katılımcıların duygulara yönelik seçeneklere katılma oranı.

Table 3. Natural landscape features that attract the attention of walkers in Zemi Valley

Çizelge 3. Zemi Vadisi'nde yürüyüş yapanların dikkatini çeken doğal peyzaj özellikleri

		Frequency					\bar{X}
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
What caught your attention or impressed you while walking in the Zemi Valley?							
Fauna	Bird sounds	5	3	2	3	17	3.80
Flora	Flowering plants	5	2	2	4	17	3.87
	Grapevines	2	5	2	5	16	3.93
	Fruit trees	5	3	2	4	16	3.77
	Dense vegetation	4	1	4	4	17	3.97
	Vegetation diversity	5	1	2	6	16	3.90
Hydrological Characteristics	Water resources	4	4	1	9	12	3.70
Geological and Geomorphological Features	Tuff formations and surface features	2	4	3	6	15	3.93
	Dynamic topography	3	4	1	10	12	3.80
Climate	Microclimatic features	3	2	2	12	11	3.87

The remarkable floristic features of the valley were listed as follows; dense vegetation ($\bar{X}=3.97$), grapevine plants ($\bar{X}=3.93$), vegetation diversity ($\bar{X}=3.90$), flowering plants ($\bar{X}=3.87$) and fruit trees ($\bar{X}=3.77$). It was observed that all parameters related to natural landscape features received high scores and that the valley was generally quite striking and impressive (Figure 6).

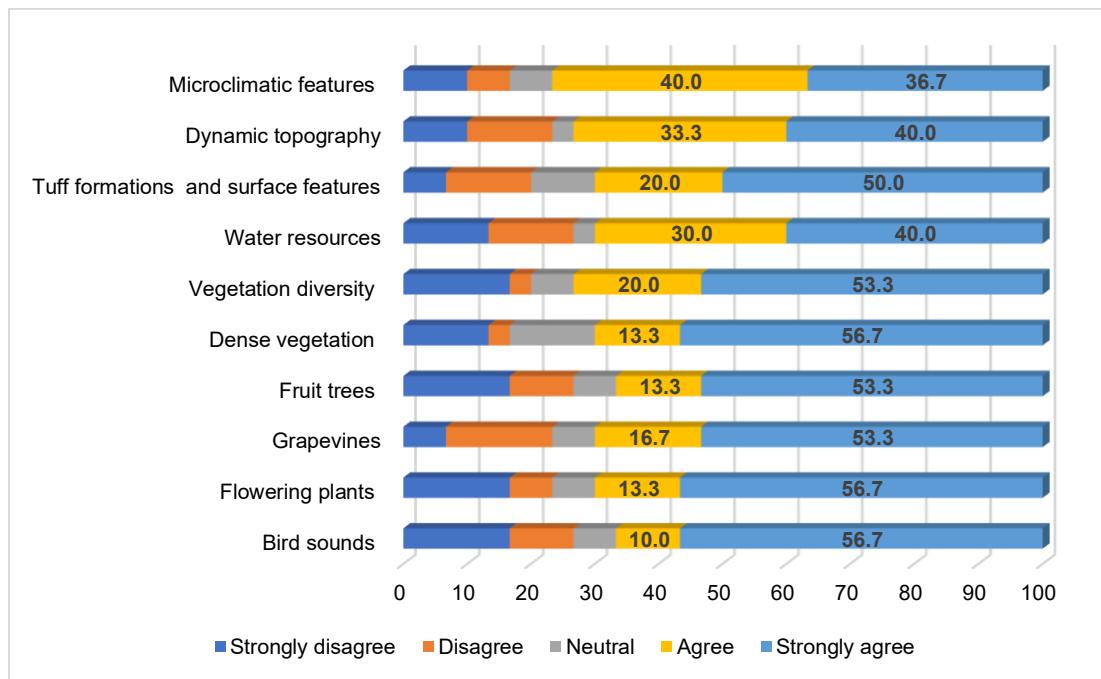


Figure 6. The rate of influence of natural landscape features of Zemi Valley on participants.

Şekil 6. Zemi Vadisi doğal peyzaj özelliklerinin katılımcıları etkileme oranı.

At the same time, the microclimatic features of the valley had a positive effect on the hikers. When the participants were asked about their general satisfaction level with the valley hike, 93.3% said they were "very satisfied" and 6.7% said they were "satisfied".

In order to evaluate the general experience of the walk, participants were asked to evaluate the valley by giving a score between 1 and 5. 83.3% of the participants described the view of the valley as "very beautiful" and 16.7% as "beautiful". In addition, 30 photographs reflecting different landscape features of the valley were presented to the participants and they were asked to choose the ones they liked the most. In this selection, photographs showing characteristic geomorphological formations and flowering plants in the region were among the most liked images (Figure 7).



Figure 7. Participants' most liked images from the landscapes formed by natural and cultural landscape elements of Zemi Valley.

Şekil 7. Zemi Vadisi doğal ve kültürel peyzaj elemanlarının oluşturduğu manzaralarдан katılımcıların en beğendiği görüntüler.

Findings regarding Chi-Square analysis

When the relationship between the demographic characteristics of the individuals participating in the walk in Zemi Valley and the reasons for walking in nature, the emotions they felt during the walk and the factors that attracted their attention in the valley was examined, significant relationships were found between gender and some options ($p<0.05$) (Table 4). However, no significant relationship was found between the age and education status.

Among the reasons for the participants to walk in nature, the motivations of healthy living ($X^2=10.492$; $p=0.014$), valuing being in touch with nature ($X^2=9.174$; $p=0.019$) and observing nature ($X^2=11.755$; $p=0.005$) were found to be higher in female participants than in male participants. In addition, female participants stated that they felt happier during the valley walk experience compared to male participants ($X^2=7.359$; $p=0.038$). Flowering plants, one of the natural landscape elements of the valley, attracted the attention of women more than men ($X^2=9.028$; $p=0.025$).

Table 4. Options with significant relationships with gender from the demographic characteristics of the individuals participating in the survey**Çizelge 4.** Ankete katılan bireylerin demografik özelliklerinden cinsiyet ile ilişkili seçenekler

Factor	Sub-factor	Gender	
		X ²	P
Reasons for hiking	Healthy living	10.492	0.014*
	Stress relief and relaxation	6.490	0.124
	Desire to discover new places	6.087	0.149
	Spending time with relatives	7.695	0.060
	Valuing being in touch with nature	9.174	0.019*
	Observing nature	11.755	0.005*
Emotions while hiking in Zemi Valley	Relaxing	3.674	0.148
	Interesting	4.569	0.336
	Pleasing	7.359	0.038*
	Exciting	7.660	0.077
	Refreshing	3.719	0.216
	Quiet/calm	5.343	0.250
	Exhausting	3.061	0.617
	Funny	4.416	0.174
	Mysterious	4.201	0.414
Attractive and influencing factors in Zemi Valley	Bird sounds	5.041	0.275
	Flowering plants	9.028	0.025*
	Grapevines	5.322	0.203
	Fruit trees	3.964	0.420
	Dense vegetation	6.639	0.101
	Vegetation diversity	4.446	0.343
	Water resources	6.447	0.137
	Tuff formations and surface features	8.005	0.056
	Dynamic topography	6.994	0.101
	Microclimatic features	5.994	0.152

* Statistically significant relationship at 0.05 level

DISCUSSION and CONCLUSION

The Cappadocia Region is a globally recognized destination on the UNESCO World Heritage List due to its unique natural and cultural features. Its unique geomorphological structures shaped by volcanic eruptions, fairy chimneys, underground cities and rich cultural texture that has hosted various civilizations throughout history, make the region special in both visual and

To preserve these unique features and pass them on to future generations, it is crucial to adopt sustainable tourism and recreation approaches. In this context, research studies addressing the natural and cultural heritage of the region in a multidimensional manner both contribute to the scientific literature on tourism and recreation activities in protected areas and provide a scientific basis for regional planning.

This study examined Zemi Valley, one of the valleys in the Cappadocia Region, from the perspective of nature walking as a nature-based tourism and recreation activity. The landscape features of the valley were analyzed through observations and how these features were perceived by users walking in the valley was assessed. The results show that the natural landscape elements of the Zemi Valley were found highly impressive by visitors. Participants described their hiking experiences in the valley with positive emotions such as "relaxing" and "pleasing" and also perceived the valley as refreshing, calm, interesting,

exciting, fun, and mysterious. This situation reveals that the valley offers a dynamic and multidimensional experience. Studies by Bratman et al. (2012) and Stier-Jarmer et al. (2021) emphasize that nature walks reduce stress levels and improve mental health, and the hiking experiences in Zemi Valley confirm this effect.

Another aspect of nature walks such as trekking and hiking is the increase in individuals' interaction with the environment and the discovery of nature (Molokač et al., 2022). Among the landscape features of the Zemi Valley, the 'geomorphological formations' attracted the participants' attention the most. Nature walks in the valley with different surface shapes not only provide physical benefits but also increase the participants' desire to discover and learn about nature.

Another feature that attracts the attention of hikers in Zemi Valley is the 'dense green texture'. Within this texture, grape plants (grapevines), fruit trees and other flowering plants with cultural characteristics are watched with interest by hikers. Studies have also shown that dense and diverse vegetation provides aesthetic value and recreational appeal (Harris et al., 2017), and the presence of flowering plants that create a color effect by covering an area increases visual preference (Akibaşında & Bulut, 2018).

In nature walks where participants are on the move, the climatic characteristics of the environment are important in terms of walking comfort. Valleys are microclimatic areas that direct wind movements, limit solar radiation and provide moisture balance due to their natural structure. In addition, studies show that plants increase thermal comfort by lowering the temperature through shading and evaporation (Bowler et al., 2010; Shashua-Bar et al., 2011; Fujiwara et al., 2024). In this regard, the microclimate characteristics of Zemi Valley create a cool and tranquil atmosphere, providing participants with both physical and emotional relaxation.

Individuals may have different motivations for engaging in nature walks based on factors such as gender. In general, nature walks stand out as an important recreational activity in line with the desire of people who love to be in touch with nature to evaluate their free time and relieve stress. Chai-allah et al. (2023) emphasized the health and well-being benefits of physical activities in natural landscapes by associating outdoor physical activities of hikers with a sense of pleasure, renewal, and physical effort. The results obtained show that Zemi Valley has significant potential in this regard. Although the valley has a dynamic topography, its moderate difficulty level makes it accessible to a broad range of visitors. When the emotions felt by the participants while hiking in the Zemi Valley are analyzed, it is seen that the nature walk in the valley offers a multidimensional and positive experience. These findings are in line with Ardahan (2012), who points out that nature walks increase the psychological well-being of individuals.

The number of local and foreign visitors is increasing every day in Zemi Valley, which is seen to have important visual, sensory, perceptual, and physical qualities in terms of nature walks in the Cappadocia Region. In this respect, the protection and promotion of the natural and cultural characteristics of the valley and the organization of planned and controlled walks by determining the carrying capacity are important in terms of sustainability.

There are information boards at the entrances and exits of the valley for nature walks and guiding signs within the valley. However, in line with the findings obtained from visitor experiences, integrating promotional content on landscape elements and natural-cultural features that increase the attractiveness of the valley into these areas will both enrich the experiences of visitors and contribute to the promotion of the valley. In addition, within the scope of tourism diversification studies in the region, it should be ensured that the walks are carried out with a guide who knows the area well and has received training in nature protection and use in the mass walking activities to be organized for tourists. During the walk, introducing the geomorphological formations and flora features, which are the most striking features of the valley, will make the walking experience more efficient for the participants who want to explore and learn. In this regard, it will be useful to conduct more comprehensive scientific studies and create promotional documents and train the guides. At the same time, in the studies to be carried out, it is necessary to determine the endemic species and take measures to prevent them from being harmed during nature walks.

Developing planning and management strategies that consider the region's sensitive ecological balance, historical values, and tourism potential will ensure both the protection and sustainable use of the valley. Effectively managing an area within the conservation-utilization balance requires a comprehensive analysis of its natural and cultural landscape features, as well as user profiles, trends, demands, and behaviors. Such holistic approaches will provide a sustainable management model that accommodates visitor needs while minimizing potential environmental and social impacts associated with tourism and recreation.

Data Availability

Data will be made available upon reasonable request.

Author Contributions

Conception and design of the study: MA; sample collection: MA; analysis and interpretation of data: MA; statistical analysis: MA; visualization: MA; writing manuscript: MA.

Ethical Statement

This research was approved by Nevşehir Hacı Bektaş Veli University Scientific Research and Publication Ethics Committee on 05.02.2025 with document number 2025.01.24.

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