

## SPIRITUAL TOURISM: TRAVEL TO EXPERIENCE VORTEX ENERGY

Kim Pham, Christine Vogt, and Kathleen Andereck  
Arizona State University, USA

**Abstract:** Where the Earth is exceptionally alive with vortex energy has drawn the attention of visitors. Some visitors believe that the energy will enhance spiritual and physical health by way of a visit. This study examined this under-explored form of spiritual tourism by focusing on developing a visitor profile and the alignment of its market to sustainable tourism management. To study this niche tourism sector, research was conducted in a famous vortex tourist destination in the Southwest U.S. using a mixed methods approach. The methods included: an online business survey, an on-site visitor survey, a mail-back resident survey, and social media analysis. The business survey results show that vortex businesses are among the most common businesses in the destination. The visitor survey results show that vortex visitors have some characteristics similar to the general visitors to the destination (e.g., age, group size) and some characteristics that distinguish them from other visitors (e.g., gender, trip length). Vortex visitors' attitudes align closely with sustainable tourism principles. The resident survey results show a lower preference for vortex tourism in the community over other types of tourism. Finally, social media analysis shows that public opinions for vortex tourism in the community studied are mixed and range from beliefs in and disbeliefs about the vortex energy. The mixed methods approach provides a more robust and complex profile of this type of spiritual tourism. The findings of this research are useful for destination management, particularly from a sustainability approach, and can provide guidance for other vortex destinations and more broadly tourism for spiritual reasons.

**Keywords:** Vortex Tourism, New Age, Sustainable Tourism, Sedona, Southwest U.S.

### Introduction

Spiritual tourism has been popular in recent decades (Olsen & Timothy, 2006). Every year, millions of tourists head to holy destinations around the world (Jackowski, 2000). Traditional destinations for this market are often related to religious sites such as churches and temples (Digance, 2006). One of the newer types of spiritual destinations are metaphysical places such as those that possess the vortex energy (Coats, 2011). Some people believe that the vortex is a source of energy that exists where the life force of the planet is particularly strong, moving in a circular pattern and coagulating into funnels (Bryant, 1991). Presumably, a vortex is created by the Earth's magnetic field and manifests itself in limestone and mineral deposits, wind and water patterns, beautiful surroundings, and ancient heritage thus making it sacred ground (Rose, 2019; Vortex Hunters, n.d.). This pure Earth power promotes a sense of spiritual and physical well-being for those who are in tune with it. It also creates abnormal effects in the environment such as bending light, scaring animals, and twisting plants into contorted shapes (Brian, 2013). A vortex comes in different directions and types (Sanders, 2005). It can be up-flow where the energy flows upward from the earth or in-flow where the energy goes toward the Earth, feminine or masculine, and magnetic or electric. Its effects on people and environment depend on the types of the direction and energy. Only a few places worldwide are considered to be vortex sites, for example, Mount Shasta in California and Sedona in Arizona in the U.S.; Lake Titicaca in Bolivia; Uluru and Kata Tjuta rock structures in Australia; and Glastonbury in the UK (Laura, 2017; Timothy & Conover, 2006).

There is a segment of spiritual tourists that are interested in visiting vortex locations and businesses that provide related services; hence forming the niche market of spiritual tourism

related to the vortex (henceforth referred to as “vortex tourism”). Though spiritual tourism has been heavily researched; literature about spiritual tourism related to the vortex is scarce. More studies are needed to generate understanding of the sector. This study explored vortex tourism by surveying businesses, visitors, and residents to provide a robust view of this form of community-based tourism that attracts an international market. It also provided a comparison of vortex visitors with other types of tourists which has not been done in previous studies. In the era of sustainable tourism, management strategies place much importance on the development of sustainable tourism products that benefit the locality environmentally, socially, and economically. Hence, it is important to examine sustainability of vortex tourism based on visitors’ demographics, trip characteristics, and attitudes toward sustainable tourism. This study is the first to explore the alignment of this market segment to destination development initiatives such as sustainability. Findings can shape destination management and lay a foundation for further studies.

### **Literature Review**

Traveling for spiritual reasons has existed for a long time in human history and seems to be the oldest and common type of travel (Kaelber, 2006; Olsen & Timothy, 2006). Spiritual travel was mostly a religious practice in the early days. In the modern world, it has also become a form of tourism with the development of economies, advanced transportation and communication technologies, and an increased interest in leisure activities (Kaelber, 2006). Spiritual tourism has been popularized in recent decades (Olsen & Timothy, 2006). While there has not been a widely accepted definition of spiritual tourism, this study used the following definition of spiritual tourist as “ someone who visits a specific place out of his/her usual environment, with the intention of spiritual meaning and/or growth, without overt religious compulsion, which could be religious, non-religious, sacred, or experiential in nature, but within a divine context, regardless of the main reason for travelling” (Haq & Medhekar, 2017, p.522 ).

Spiritual tourism is often related to a pilgrimage. A pilgrimage refers to a journey to sacred places in search of connection with God, the divine forces, or cosmology (Digance, 2006). Pilgrimage destinations are natural or human-made sites that are attached to holy spirits, such as temples, churches, mountains, pilgrimage paths, architecture, and metaphysical places (Olsen & Timothy, 1999). Travellers to these sites expect to be set apart from the mundane daily world and be transformed into a different state (Eliade, 1961). They want to become a better human being through building social relations and connections with the surrounding environment that enables them to reflect on life, values, and ethics (Cheer, 2000). A number of pilgrimage travellers feel something is missing in their lives whether it is power, health, or a sense of meaning, and they believe the miraculous occurrence of something spiritual in a sacred places can help obtain transformation (Coleman & Elsner, 1995; Digance, 2006; Turner, 1973).

Many governments and tourism agencies encourage spiritual tourism as a way to promote heritage sites and to generate economic benefits (Olsen, 2003; Timothy & Boyd, 2003). Marketing campaigns and a growing interest in cultural and heritage sites have also attracted tourists to sacred places for reasons not associated with spiritual beliefs (Olsen, 2003). These tourists might come out of their curiosity or an educational interest in learning more about the site (Olsen, 2003; Shackley, 2001a). Spiritual tourism in this scenario refers to the market of tourists visiting sacred places more as sightseeing.

There are many ancient pilgrimage destinations some of which are attached to specific religions such as Jerusalem for Roman Catholic and Mecca for Muslims (Digance, 2006). New pilgrimages sites have also evolved (Digance, 2006). In the mid 1970s, spiritual tourists started to notice

places with vortex energy and increasingly have travelled to those places (Coats, 2011). Spiritual tourism in general has received much attention to become an important research area in sociology, tourism, and business (Cochrane, 2009; Simpson, Cloud, Newman & Fuqua, 2008). However, spiritual tourism that is related to vortex energy is one of the least studied topics in recreation and leisure, partly due to the scarcity of places worldwide. Few studies have mentioned, examined, and discussed vortex energy and the nature of visitation to vortex places (Coats, 2008; Coats, 2009; Coats, 2011; Duntley, 2015; Ivakhiv, 2001; Norman, 2014; Plate, 2009; Timothy & Conover, 2006). Such studies place vortex visitation as part of the New Age movement which “stresses the sanctity of nature, harmony of the cosmos, resurrection of ancient spiritual traditions, and self improvement in the realms of spirit, mind, and body” (Timothy & Conover, 2006, p. 139). New Ageism promotes simpler and ecologically oriented lifestyles to achieve personal meaning and self-transformation (Ivakhiv, 1997). The movement is believed to have emerged in the 1970s in California following the counter-cultural mysticism of the 1960s (Ivakhiv, 1997; Kyle, 1995). It quickly became a “pluralistic religious” mainstream in the U.S. during the 1990s with followers worldwide since more people became dissatisfied and stressed with contemporary society (Lengfelder & Timothy, 2000). Until the 2000s, the estimated number of New Agers was between 10 to 20 million across the globe (Aldred, 2000). New Age tourism related activities are considered pilgrimage trips to sacred places (Reisinger, 2005). During the 1970s, there was a strong interest in powerful energies of the Earth and forces of ancient civilizations; it was at this time that the vortex concept was introduced and became central to New Age activities in select places (Coats, 2011; English, 2002).

There are two types of New Age travellers, the “mere tourists” that return home shortly after the trips and the “genuine pilgrims” that travel for a long time from places to places to seek long-term spiritual transformation (Ivakhiv, 2003). The dynamics of New Age tourism enables the development of related services and facilities such as healing centers, spiritual communities, retreats, and commercial shops (Huntsinger, & Fernández-Giménez, 2000; Timothy & Conover, 2006). Coats (2011) discussed New Age visitors’ motives to experience sacred places, specifically to vortex places in Sedona, Arizona in the U.S. Accordingly, New Age followers visit different spiritual places including vortex sites to seek spiritual enlightenment, escape from pressures of modernity, and search for life guidance from the wisdom of ancient civilizations. New Age visitors in the study described the transformation they experienced after the trip such as “what Reiki (a form of life force energy) has done for me is to open me up to receive divine love and light and sharing with others” (Coats, 2011, p.207) or “As we walk the vortexes together issues are revealed. The quality of expansive energy begins with the beautiful terrain and continues through my body, opening my mind, expanding my awareness.” (Coats, 2011, p.208). Several scholars attempted to describe a profile of New Age tourists. Kyle (1995) and Tucker (2002) described most New Age pilgrim-tourists as white and female. According to Coats (2008), New Age tourists were at least 46 years old, had a median household income of \$94,200, and often came from Western states of the U.S. They were mostly day-trippers, who spent between \$190 and \$300 per day. Those who stayed overnight spent an average of three nights and spent between \$344 and \$400 per day. Half of the New Age visitors travelled with another person or in a group. Many had previously visited Sedona. Beside spiritual purposes, they also came to the destination for shopping, hiking, and visiting galleries and museums. This profile of visitors was not evidence-based for New Age visitors, but instead inferred from the characteristics of Sedona tourists as a whole.

Aside from exploring the history of the New Age movement and describing its tourism activities, past studies have illuminated the controversy surrounding this activity. According to Timothy and Conover (2006), some ritual activities have negative connotations. They may contribute to

environmental deterioration, such as rearranging rocks to create a medicine wheel or using candles in fire prone areas on public, tribal or private land. Some visitors leave ritual offerings at the sites or take certain objects as souvenirs, hoping that they will retain spiritual energy. New Age practices often borrow ideas from the local culture and turn them into commercial gain, thus resulting in a conflict.

The existing literature related to the vortex has focused on New Age followers. Though New Age is related closely to vortex energy and information about New Age tourism could closely reflect vortex tourism, there is a need to specifically study vortex tourism as a whole that might include New Age non-followers. Current literature lacks an evidence-based profile of vortex visitors and vortex businesses. Moreover, past research is limited to secondary data or interviews with tourists. No study has used a large, randomly selected sample using surveys.

Tourism, as the largest single sector of the world, could contribute substantially to sustainable development from local to global scales (Hunter, 1997); hence requiring the industry to be sustainable itself. The UNWTO (2005) defined sustainable tourism as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities.” In pursuit of sustainability goals, businesses, governmental and tourism organizations launch initiatives and educational programs to steer tourists’ behaviors to minimize negative impacts of their travel to the environment and society (Götz et al., 2002; Upham, 2001). Sustainability programs guide tourists toward sustainable consumption since tourists’ choices have different significance for the sustainability of tourism destinations (Budeanu, 2007). Examples of sustainable choices suggested for tourists are ecofriendly local transportation to mitigate air pollution, congestion, noise, and the risk of vehicle accidents; local products to help bring income to local residents and prevent leakage of tourism revenue to foreign or outside investors; and sustainable certified businesses (Budeanu, 2007; Jarvis, Weeden & Simcock, 2010). Visitors are also encouraged to support environmental initiatives such as Leave No Trace initiated by different U.S. land management agencies that encourages visitors to keep the environment clean by leaving no trash behind and doing no harm to the sites; or Dark Sky initiated by International Dark Sky Association that discourages light pollution by turning off the lights in cities (Rodrigues, Rodrigues, & Peroff, 2015; Vagias & Powell, 2010). In addition to tourists’ behaviors and attitudes toward sustainable initiatives, others of their characteristics are important for sustainable tourism development (Dolnicar & Leisch, 2008; Nickerson, Jorgenson & Boley, 2016). Different types of tourists create different impacts on destinations (Lundie et al., 2007). Therefore, destinations that prioritize sustainability are selecting tourists based on segmentation that categorizes tourists into sustainable tourists and less-sustainable tourists based on their demographics, motives to visit a destination, and trip characteristics (Blamey & Braithwaite, 1997; Nyaupane, White & Budruk, 2006). Sustainable tourists are those that carry lower environmental footprints and create higher economic and social values (Lundie et al., 2007; Nickerson, Jorgenson & Boley, 2016). Some scholars and destination developers recommend targeting tourists who stay longer at a destination rather than day-trippers (Becken & Simmons, 2008). This type of visitor could lead to more local spending. Additionally, a longer stay could result in less greenhouse gas emissions since travel is spread across the length of a trip. Other suggested segments are repeat visitors and environmentally oriented tourists (Inskeep, 1991).

Residents are major actors in the tourism development process since they take part in providing services for tourists, create attractions, and are directly affected by tourism (Ap, 1990; Gunn, 1994; Murphy, 1985). Murphy (1985) argued that the good will and cooperation of host communities is vital for tourism development. As tourism grows, the residents in many

destinations may not automatically accept all (or any) forms of tourism development imposed by the industry in the locality (Gunn, 1994). Recent cases of residents launching campaigns against tourism because of heavy visitation that is severely deteriorating quality of life is evident in popular destinations such as Venice and Barcelona (Seraphin, Sheeran & Pilato, 2018). Consequently, assessing resident attitudes toward tourism is necessary for sustainable development and management. Many studies focus on residents' attitudes toward impacts of tourism (Brougham & Butler, 1981; Gilbert & Clark, 1997; Lankford, 1994). Andereck and Vogt (2000) suggested both researchers and destination managers examine residents' attitude about different types of tourism products specifically considering level of acceptance of various forms of tourism development. Findings from resident studies can help destination managers to promote and manage suitable products that satisfy visitors' and residents' needs and desires.

Authenticity plays an important role in sustainable tourism development (Cohen, 2002). Authenticity refers to different meanings: (1) tourism products or services created by local people according to custom or tradition, (2) the sense of the genuine, the real or the uniqueness of products or services, and (3) a potential existential state of "being" that is to be activated by tourist activities; at this stage, people feel they are themselves, much more authentic and more freely self-expressed than in everyday life (Cohen, 2002; Wang, 1999). Therefore, authenticity advocates local culture and lifestyle, as well as visitors seeking meaningful tourism activities. Concerns that tourism leads to commoditization of authenticity for economic gains exist (Greenwood, 1977). "Staged authenticity" has been considered to be a by-product of the commodification process (Cohen, 2002; Wang, 1999).

This study approached the phenomena of vortex tourism with survey methods and probabilistic sampling methods to provide a more in-depth profile and understanding of this tourism subsector that has been lacking in the literature. Additionally, this study examines the sector as a component of sustainable tourism from three viewpoints: (1) vortex visitors' attitudes toward sustainable consumption and initiatives in tourism, (2) residents' attitudes toward the development of vortex tourism, and (3) the authenticity of vortex energy, as well as vortex tourism, from the public's perspective. The research questions of the study are:

- Question 1:** What are the size and characteristics of vortex tourism businesses (in the studied destination)?
- Question 2:** What is the size and characteristics of the vortex visitor market? How are they different from non-vortex visitors?
- Question 3:** How do vortex visitors' attitudes align with sustainable tourism principles?
- Question 4:** What is the acceptance level of local residents toward vortex tourism?
- Question 5:** What are public opinions regarding the authenticity of vortex energy and vortex tourism?

### **Research Site and Methods**

To study spiritual tourism featuring vortex energy, a destination in the Southwest U.S. was considered a suitable place to examine the research questions. The place is considered a popular tourism destination in the U.S. that attracts approximately three million visitors each year, including domestic and international. Some of its features include unique red rock landscapes, several state parks, and more than 300 miles of hiking trails. It is also well known for Native American heritages sites. Different Native American groups inhabited the area from 500 AD until recent centuries leaving behind historic ruins that have become an important part of the tourism attraction (Dream Sedona, 2011). Since the 1970s, together with the popularization of the New Age movement, many spiritual experts and believers think this location possesses the sacred

energy of the vortex (Coats, 2009). The general belief is that there are several vortex sites at the destination, however some consider the entire area as a vortex (Andres, 2007). Page Bryant, a psychic, was credited to be the first person to identify specific locations of powerful energy centers in the area. She called these centers “vortexes” and made the concept popular (Ivakhiv, 2001). Bryant’s proclamations arrived just as the New Age movement was gathering momentum. These events led to thousands of people moving to the area to be close to the energy centers or people visiting as a pilgrim destination, thus forming the market for spiritual vortex tourism. The New Age movement also brought international tourists to the region through its global network (Coats, 2011). Since then, different local actors such as the Chamber of Commerce and Tourism Bureau, local businesses, tour guides, and spiritual practitioners have advocated for the vortexes. Vortexes appear in marketing strategies of local businesses and government offices, including maps of vortex sites. During the 1990s, the vortexes gained great attention from media and were highlighted by leading newspapers in the U.S., making the destination a mainstream spiritual site for pilgrims (Coats, 2011). Currently, there are numerous activities at the vortex sites, such as yoga and meditation; course offerings for advanced mind and body vitalization; vortex workshops or simply visiting the vortex sites.

This study employed a mixed methods approach to explore different aspects of vortex tourism. According to Creswell (2013), a mixed methods approach involves collecting, analyzing, and integrating quantitative and qualitative data within the same study. The combination of the two types of data provides a better understanding of a research topic. One popular way to conduct a mixed methods approach is using a sequential explanatory design. Accordingly, researchers first collected and analyzed quantitative data and based on the results, then designed the subsequent qualitative phase. The qualitative phase can help to explain unexpected results from the quantitative phase.

A delimitation of the research was correctly identifying those who visited for the vortex energy. As the literature review revealed, there are many classifications of spiritual and New Age activities that could be related to the vortex energy (Coats, 2009). It is reasonable to assume that spiritual, New Age, and vortex tourism overlap in the destination studied. To create a vortex visitor segment, two variables were used to validate (or triangulate) that both the interest in and actual visiting of vortex sites occurred during a visit to the destination. To be considered a vortex visitor, respondents to the visitor survey had to select either “vortex visit or tour,” or “spiritual, metaphysical activities” as a leisure activity that they did or were likely to participate in during their visit. Additionally, respondents had to indicate that they actually visited “vortex sites.” All other respondents were considered “non-vortex” or general visitors.

The first phase of this study used an online business survey, an on-site visitor survey, and a mail-back resident survey. The different modes of conducting surveys were because of the availability of sampling lists and the best ways to reach each of the populations. An incentive was used for each of the surveys where one or two people were selected in each sample to receive a restaurant gift card. Participants in all surveys were 18 years old or older which was confirmed using screening and reported age in the dataset. Data analysis was conducted using SPSS and consisted of descriptive statistics and tests of association such as Chi-square and independent-samples t-test. Where Chi-square and independent-samples t-test were applied, a P value that was less than .05 showed a significant difference between compared groups (Moore & Kirkland, 2007).

The business survey was administered on Qualtrics software during June and July 2018. Invitations were sent to representatives of 676 local businesses that are members of the local Chamber of Commerce & Tourism Bureau. The list included tourism and non-tourism businesses.

The online survey asked about the volume of business, year of operation, number of employees, and how businesses were related to the tourism industry.

The visitor survey was conducted from January to July of 2018 at six sites including: a church, a shopping mall, an up-town business district, a state park, and two trailheads. Surveys were conducted twice per month at each site, each time for six hours. The dates of surveying varied between weekdays and weekends. Sampling was random selection; the surveyors invited one participant every 10 minutes. For tourists travelling in groups, only one participant was invited to complete the survey. The survey targeted both vortex visitors and non-vortex visitors. Vortex visitors were those who indicated they participated in spiritual and metaphysical activities, took a vortex tour, or visited a vortex site. General visitors were those who did not participate in any of these activities. Demographics (age, gender, etc.) and trip characteristics (group size, trip length, etc.) were also measured. Visitors' opinions about sustainable initiatives in destinations were measured by asking the respondent to rank seven initiatives that they look for on vacation based on a scale from 1 equals "not important" to 5 equals "very important."

The resident mail survey was administered from March to July of 2018 to 1,000 randomly selected households from a tax list. Households selected were approximately 20% of the owner-occupied units. One primary adult in each household was asked to complete the questionnaire. In this survey, residents were asked about their level of support for different types of tourism products and facilities in the destination that included spiritual and vortex activities. The scale for residents to express the level of support ranged from 1 that equals "not acceptable" to 5 equals "very acceptable."

A qualitative approach using social media was applied in the second phase during January 2019 to examine public opinions about vortex tourism. Comments to posts on TripAdvisor and Reddit webpages, as well as to videos on YouTube, were collected using key words "vortex in [the area]", and "vortex tourists/visitors in [the area]." This qualitative approach was added after the residents' survey results showed a lower level of support for vortex tourism compared to other types of tourism, thus following a mixed methods explanatory approach (Creswell, 2013). Social media analysis was selected as a method to gain a deeper understanding of public opinions for what might be the reason(s) for lower support from residents through their narrative explanations. The collecting and theming of comments were conducted applying saturation basis in qualitative research. Saturation is reached when data become redundant with no new information or themes being revealed by further data collection; hence the researcher could claim that they have enough data to achieve research purpose (Charmaz, 2006; Faulkner & Trotter, 2017). The social media data in this study reached saturation after 125 comments were selected and analyzed. The comments were posted during the recent years from 2012 to 2018.

### **Data Analysis and Results**

The business survey generated 222 responses (response rate of 36%) from a wide range of businesses. Results from the business survey addressed the study's research question 1 that focused on the size and characteristics of vortex tourism businesses in the studied destination. The businesses that operate primarily as spiritual services accounted for 12% (n = 26) of the respondents. Spiritual businesses were among the most popular business forms, together with retail businesses (13%) and accommodation businesses (12%) (Table 1). These businesses averaged 12.3 years of operating; with 36% of the spiritual businesses operating from 20 to 36 years, thus suggesting the longevity of vortex tourism. Most businesses employed less than ten employees, including owners. Over half of the spiritual businesses considered themselves as tourism businesses (65%) and almost all of them indicated that they benefit from tourism (96%).

**Table 1.** Profile of spiritual businesses (n = 26)

Length of business operations	Number of employees	Tourism orientation	Benefit from tourism
Mean: 12.3 years	< 10 employees	Yes: 65%	Yes: 96%
Range: 1 to 38 years	(including owners):	No: 35%	No: 4%
Below 20 years: 64%	96%	Total: 100%	Total: 100%
20 years and above: 36%	> 10 employees: 4%		
Total: 100%	Total: 100%		

The visitor survey yielded 1,001 respondents. Vortex visitors accounted for 143 respondents (14%). General (non-vortex) tourists, those who did not clearly come to the destination for the vortex energy or actually visit vortex sites, accounted for 410 respondents (41%). Another 448 respondents (45%) could not be accurately categorized as either vortex or general tourists due to insufficient answers on the two questions used to classify and validate the two groups. Based on these segment sizes, approximately 420,000, out of 3 million annual visitors (as estimated by the Chamber of Commerce & Tourism Bureau), are vortex visitors. Vortex visitors and general visitors were a focal point of this research. Results from the visitor survey addressed the study's research question 2 that focused on the size and characteristics of the vortex visitor market, and differences between vortex and general visitors.

Chi-square tests were used to measure the association between vortex visitors and general visitors on gender ( $p = .006$ ), residency ( $p = .000$ ), length of trip ( $p = .000$ ), and accommodations ( $p = .167$ ) (**Table 2**). Results showed that vortex visitors were mostly female (64%), come from out-of-state (74%), and tended to stay overnight (86%) in comparison to general visitors. Vortex visitors were not statistically different from general visitors in overnight accommodations choice.

**Table 2.** Comparison of vortex and general visitors on demographics and trip characteristics using Chi-square tests (categorical variables)

Demographics and trip characteristics	Vortex visitors (n = 143)/ %	General visitors (n = 410)/ %	p
<b>Gender</b>			
Male	36	49	.006
Female	64	51	
<b>Total</b>	100	100	
<b>Residency</b>			
In-state	18	36	.000
Out-state	74	55	
International	8	9	
<b>Total</b>	100	100	
<b>Daytrip/Overnight trip</b>			
Day trip	14	45	.000
Overnight	86	55	
<b>Total</b>	100	100	



<b>Accommodation (for overnight visitors)</b>				
Timeshare	12	10		
Resort	23	16		
Full-service hotel	18	23		
Limited-service hotel/motel	7	10		
Bed & Breakfast	8	8		.167
Campground or RV park	7	13		
Rented vacation home (e.g. Airbnb, HomeAway, VRBO)	20	12		
Staying with friends or relatives	5	8		
<b>Total</b>	<b>100</b>	<b>100</b>		

Independent samples t-tests were employed to identify the relationship between vortex visitors and general tourists on additional demographics and trip characteristics. Age ( $p = .210$ ) and party size ( $p = .889$ ) were similar for vortex and general tourists (Table 3). For both groups, the average age was about 46 years old. Baby Boomers were the largest segment of visitors (36% for vortex visitors and 28% for general tourists). The average party size of both groups was 3.5 people per party, mostly comprised of family and friends. Trip length was found to be significantly different for the two visitor segments ( $p = .014$ ). Vortex visitors stayed longer, with an average trip length of 4 nights, in comparison to 3 nights for general tourists. Number of visits significantly differed for the two visitor segments ( $p = .009$ ). Vortex visitors visited the destination more times ( $M = 5.19$ ) than general visitors ( $M = 3.68$ ). Vortex visitors rated satisfaction of the tourism destination differently than general tourists ( $p = .000$ ). Vortex visitors rated the destination slightly higher ( $M = 4.67$ ) compared to general tourists ( $M = 4.46$ ).

**Table 3.** Comparison of vortex and general visitors on demographics and trip characteristics using independent samples t-tests (ratio/interval data variables)

<b>Demographics and trip characteristics</b>	<b>Vortex visitors (n = 143)/ Mean</b>	<b>General visitors (n = 410)/ Mean</b>	<b>t</b>	<b>p</b>
Age (years old)	46.5	46.3	.153	.210
Satisfaction with destination (scale: 1=poor to 5=excellent)	4.67	4.46	3.930	.000
Number of visits	5.19	3.68	6.849	.009
Trip length (days)	4.09	3.00	2.471	.014
Party size (persons)	3.52	3.57	-.139	.889

Vortex visitors participated in vortex activities, whereas general tourists did not. Other popular activities for both groups included hiking, sightseeing, shopping, and dining with participation levels ranging from 68% to 86% (Table 4). The next most popular activities were picnicking, land touring, and visiting galleries and museums with participation levels ranging from 18% to 32% of the respondents. The least popular activities were biking, golfing, camping, and attending special events with participation levels ranging from 2% to 8%. Chi-square tests showed some associations of activities and visitor groups. Vortex visitors (in comparison to general visitors) were more likely to hike ( $p = .000$ , 86% vs. 68%), receive spa treatments ( $p = .000$ , 15% vs. 6%), sightsee ( $p = .006$ , 80% vs. 69%), picnic ( $p = .010$ , 28% vs. 18%), visit galleries and museums ( $p = .026$ , 32% vs. 23%), and shop ( $p = .036$ , 77% vs. 68%).

**Table 4.** Comparison of vortex and general visitors on trip activities using Chi-square tests (Multiple choices were allowed)

<b>Trip activities</b>	<b>Vortex visitors (n = 143)/ %</b>	<b>General visitors (n = 410)/ %</b>	<b>p</b>
Hiking	86	68	.000
Spa treatment	15	6	.000
Sightseeing	80	69	.006
Picnicking	28	18	.010
Visiting galleries, museums	32	23	.026
Shopping	77	68	.036
Land touring (e.g. jeep, ATV, horseback)	27	20	.054
Dining	72	66	.204
Camping	6	8	.548
Special occasion (e.g. wedding, reunion)	4	5	.736
Special event (e.g. festival, concert)	3	2	.818
Biking	4	4	.918

The visitor survey also addressed the study’s research question 3 that explored how vortex visitors’ attitudes aligned with sustainable tourism principles. Association between visitor segments and the importance for sustainability initiatives by destinations were found on six of seven initiatives (**Table 5**). Those initiatives includes environmental practices at businesses, Leave no Trace principles in parks, localized economies, tours or attractions that do not put stress on the surrounding environment, business sustainability certification, and environmentally friendly transportation (p-level ranged from .000 to .039). Vortex visitors placed more importance (means vary from 3.69 to 4.49) on these initiatives compared to general visitors (means vary from 3.45 to 4.19). The importance of Dark Sky recognition was similar for the visitor segments (p = .069).

**Table 5.** Comparison of vortex and general visitors on sustainability initiatives using independent samples t-tests (ratio/interval data variables)

<b>Sustainability initiatives</b>	<b>Vortex visitors (n = 143)/ Mean</b>	<b>General visitors (n = 410) /Mean</b>	<b>t</b>	<b>p</b>
Businesses that implement environmental practices	4.18	3.78	3.768	.000
Parks that promote the “Leave no Trace” principles	4.49	4.19	3.076	.002
Businesses where spending is retained locally	3.93	3.56	3.187	.002
Locally owned and operated tours or attractions that do not put stress on the surrounding environment	4.27	4.04	2.409	.016
Businesses that have a sustainability certification	3.69	3.45	2.121	.034

Low impact transportation options such as public transportation, bike share or pedestrian walkways	3.87	3.65	2.073	.039
Communities recognized by the International Dark Sky Association	3.56	3.30	1.830	.069

*Scale of 1-5 from 1=not important to 5=very important*

The resident mail survey had 376 homeowner respondents (38% response rates). Results from the resident survey addressed the study’s research question 4 that examined the acceptance of local residents toward vortex tourism. Respondents were asked to rate their acceptability level to expand interest and demand for 18 tourism experiences or services in the destination. They rated the acceptability of spiritual/metaphysical activities and facilities, which includes vortices, lower than many other activities such as visiting national parks, festivals and events, and shopping (Table 6).

**Table 6.** Residents’ acceptance of expanded interest and demand for tourism experiences or services

<b>Expanded interest &amp; demand for:</b>	<b>Mean</b>
State/National Parks & Heritage Sites	4.3
Trails-nonmotorized	4.2
Archeological sites	4.0
Outdoor recreation opportunities	4.0
Public transportation	4.0
Museums/Galleries	3.9
Festivals/events	3.8
Wineries/craft brewers	3.7
Entertainment (theaters, music, etc.)	3.7
Scenic drives	3.6
Retail stores/Shopping	3.5
Tour services	3.2
Bed and Breakfasts/ Inns	3.1
Spiritual/metaphysical/vortex activities	3.1
Resorts	2.9
Hotels/Motels	2.8
Airbnb	2.4
Trails-motorized	2.2

*Scale of 1-5 from 1=not acceptable to 5=very acceptable*

Public comments on social media channels for the destination (TripAdvisor, Youtube, and Reddit) about the vortex energy and vortex tourism were examined. Social media analysis was conducted to answer the study’s research question 5 that asked what public opinions were regarding the authenticity of the vortex energy and vortex tourism. Following the quantitative research approaches of surveys, a qualitative research approach allowed for narrative expression to interpret quantitative findings. From 125 public entries, 66 comments held content about level of support for or beliefs about the vortex energy and vortex tourism. These comments showed that public opinion was mixed. The commenters were different types of people, including residents, tourists, and the general public. A number of individuals considered the vortex energy as a hoax and opposed the related businesses. Quotes from the social media posts that support this claim include:

“Folks, vortices in [the area] were allegedly made up by an individual seeking to charm your money away years ago.”

“The vortices themselves are truly a hoax, but people will believe what they want to believe regardless of the truth. And in [the area], there's always someone who

will take your money and reinforce false beliefs.”

Some commenters showed concern about the people who took part in vortex activities. Quotes from the social media posts reveal concern:

“There may be ungrounded woo-woo people ... who often appear disconnected from reality.”

Some commenters said tourists were renewed simply because of the beautiful natural setting, outdoor activities, and fresh air; not because of any mysterious energy sources:

“I must say that [the area] is a very healing place in general. You don't need to go to any vortex. The beauty and exotic formations inspire such deep feelings and inspiration one can understand why people have come here to rejuvenate physically and spiritually.”

Opinions that supported vortex activities and respected other people’s beliefs are reflected in these quotes:

“I personally would not go on a vortex tour but would never stand in the way of someone who does. Everyone is different, and people face difficult decisions and look for guidance in spiritual things like vortexes. People come to [the area] for different reasons, which is why there is a variety of services offered.”

Some people even shared their own experiences with vortex energy. Quotes included:

“My own experience of [the area] started back in 2004 with vortex tours and ceremonies I took part in here on this beautiful land. As a matter of fact, it had such a profound influence on my life that I eventually moved here and it is a truly sacred place for me.”

“Did I feel something at the vortex sites? Yes. I felt a warm energetic soothing sensation from my feet flow to my feet to the top of my head. Would I have felt it without someone telling me about it? I don't know. Did it change my being? Yes.”

For those who believe in the vortex energy, on social media sites they discussed whether visitors should take vortex tours with local businesses, can the vortex energy be explored without a tour guide, or to make recommendations of a good travel agent or places where the vortex energy can be found.

### **Discussion and Conclusion**

Social science research on vortex tourism is lacking despite the attraction of vortex energy being a unique and rare phenomenon. Vortex tourists are a segment within a larger tourism market. This research aimed to estimate the size of vortex tourism at a vortex destination in the southwest U.S. Findings from a business survey and a visitor survey suggest that vortex and spiritual tourism is one of the top business forms in the destination (at least 12% of local businesses provide related services) and a sizable portion of tourist volume (around 14%). Vortex businesses have operated in the destination for nearly 40 years. Almost all of the vortex businesses are related to and benefit from tourism. Hence, the vortex/spiritual business operations and the arrivals of vortex visitors play an important role in the local economic, social, and culture fabric of the community. Importantly, this study is the first to examine and provide empirical data on the vortex tourism system of businesses, visitors, residents, and the public, and can be used as a reference for future study and to guide community development, management, and marketing.

Findings from the visitor survey also suggested that vortex visitors were similar to general visitors in specific ways. Some of their similarities are the common visitor characteristics such as being middle-aged, with Baby Boomers as the largest segment. The patterns of activities within

each group are similar, except for vortex related activities. This could be explained by the availability of tourism services that encourage some activities more than others such as hiking and shopping, rather than biking and walking. Vortex visitors are also different from general visitors in several ways such as gender, length of stay, and visitation history. Our findings show vortex visitors are more likely to be female, which is a finding supported in religious literature. Women are more religious, spiritually oriented, and more superstitious than men (Argyle & Beit-Hallahmi, 2014; Trzebiatowska & Bruce, 2012; Walter & Davie, 1998). Women tend to pray, worship, and claim faith more than men; and they dominate the New Age world (Trzebiatowska & Bruce, 2012). Women have a tendency to seek spiritual support because they are more vulnerable than men due to historical low status in society; they are also more afflicted than men by poverty, illness, old age and violence. Additionally, their responsibility to give birth makes them sensitive to the ideas of life, death and the universe (Trzebiatowska & Bruce, 2012). Another difference between vortex visitors and other visitors is vortex tourists are more likely to stay overnight and stay longer at the destination than the general visitors. A possible explanation is that many spiritual experiences take time and are offered as three-day retreat packages or four-day tours to experience different vortex sites. The findings also showed that vortex visitors, besides participating in vortex activities, experience other tourism activities which keep them in the area longer. This finding may align with Ivakhiv's(2003) research that genuine spiritual tourists stay longer to accomplish their spiritual journey and goals. A final explanation for vortex stays being longer than general tourists is that the vortex energy sites are rare and visitors travel farther from home to reach these places that they may visit just once in a lifetime.

Successful tourism development can depend on support from residents (Murphy, 1985). The findings from this research suggest that vortex tourism is moderately accepted by local residents in the destination studied. Some residents expressed that they preferred other tourism activities more than those associated with the vortex energy. A lower support from local residents could be a challenge for developing vortex tourism further. One of the reasons for lower support from residents might be because many doubt the existence of vortex energy. Hence, the authenticity of vortexes is questionable. The general public's opinions about vortex tourism, as shown in the content gathered from social media posts, fluctuated between support for and disapproval or disbelief. It is important for destination managers to address residents' and the general public's attitudes toward the vortex energy and vortex tourism to ensure this tourism segment does not become annoying to residents and the general public (Andereck & Vogt, 2000; Byrd, 2007; Woo, Kim & Uysal, 2015).

Another aim of this research was to evaluate how vortex tourism aligns with sustainable tourism strategies. Tourism researchers suggest that destinations could be more effective using segmentation to evaluate visitor segments' alignment with sustainability, and apply a targeted approach to each segment of visitors (Dolnicar & Leisch, 2008; Nickerson, Jorgenson & Boley, 2016). Based on our findings, vortex visitors appear to be sustainable visitors in a couple of ways that the literature espouses (Becken & Simmons, 2008; Inskip, 1991). First, vortex visitors' attitudes align closely with sustainable tourism principles. They considered sustainable initiatives such as environmental protection and promotion of local business to be more important than general visitors. These attitudes might be closely aligned with New Age ideology of living in harmony with the nature, the universe and with other people. Second, vortex visitors stay longer and have more multiple visits than general visitors, both features that potentially can generate more spending and less of a carbon footprint.

Besides these positive alignments of vortex visitors to sustainable tourism practices, some behaviors, that is spiritual practices related to vortex visitation, have caused negative impacts on

environment and local culture (Timothy & Conover, 2006). Findings from social media content suggest some level of negative impacts are occurring in the destination that are being attributed to vortex visitors. To mitigate negative impacts, the vortex sector may need to be further regulated. Another solution is educating the vortex visitors and modeling appropriate behaviors that can lead to higher sustainability levels.

Pragmatic contributions of this vortex tourism research are to apply the findings to management and marketing strategies. First, marketing strategies could be further targeted to female visitors, since women are the dominant segment that visits vortex sites. A second strategy could be to encourage and incentivize longer stays to provide greater economic benefit through overnight stays. Support for these two strategies is the higher satisfaction levels by vortex visitors and loyal consumers (positive attitudes, repeat visitation).

This study on vortex visitors contributes to the literature in terms of methodology and theme development. This is the first study to investigate this visitor market using survey methods combined with content analysis from social media. It is also the first study to examine this market segment as a component of a sustainable tourism management approach. Finally, this research incorporates four distinct stakeholders' perceptions. Further research can extend our knowledge on vortex tourism (businesses, visitors, residents, social media users). Suggested topics include examining the social and economic impact of vortex visitors and modeling management strategies for vortex activities and visitor behaviors. Vortex visitors are also ripe to delve into religious or spiritual beliefs and how they are impacted by travel experiences. While our study used surveys, random sampling, and content analysis of social media, future research could apply qualitative approaches for a deeper examination of residents' perspectives about vortex tourism using interviews. Our research studied one world renowned location believed to possess the vortex energy. Each vortex site is believed to possess different energies attributed to different planetary dynamics and sites reside in various global places with unique cultures. Research at other vortex places around the world will provide more in insight into the phenomenon of traveling to and experience the vortex energy.

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**Contributors:** Kim Pham, PhD student, Arizona State University, USA; Professor Christine Vogt, Arizona State University, USA; Professor Kathleen Andereck, Arizona State University, USA

**Corresponding Author:** Kim Pham. Email: [kimpham@asu.edu](mailto:kimpham@asu.edu)