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Harnessing and marketing of Lejja archaeological site for tourism development in Nigeria

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Abstract: The Lejja Archaeological Site showcases Nigeria's diverse cultural heritage, highlighting its historical significance through its unique features. Despite its cultural asset, the site remains unexamined in the context of tourism. The neglect is primarily due to issues like inadequate infrastructure, poor accessibility, low digital visibility, and lack of coordinated stakeholder engagement in its development and promotion. The study explores the harnessing and marketing of Lejja Archaeological Site for sustainable tourism destination in Nigeria. The study adopt qualitative research design and data sourcing, which includes in-depth interviews, semi structured interviews, and site observations for data collection. Six people were interviewed in the course of the study. The data was analysed using descriptive approach. However, the findings identify the site's features with tourist potentials and strategies on how to harness them. Additionally, the marketing strategies tailored to target audiences, including branding, digital marketing, and cultural events were analyzed. This article provides insights into sustainable tourism development that motivates policymakers and stakeholders to support the sustainable development of Lejja Archaeological Site. Ultimately, by harnessing and effectively marketing this cultural gem, Nigeria can unlock economic opportunities, preserve its heritage, and enrich the tourism landscape. Future study recommended to investigate community-based tourism and indigenous knowledge, plan for upgrading tourism infrastructure, digital and virtual heritage tourism, and comparative heritage site analysis.

Keywords: Lejja archaeological site; cultural heritage tourism; archaeological tourism development; digital heritage marketing; community-based tourism; Nigeria

1. Introduction

The Lejja Archaeological Site, nestled in the Nsukka region of Enugu State in southeastern Nigeria, is an invaluable asset in the country's rich tapestry of cultural and historical heritage. This site is distinguished by its numerous ancient iron-smelting furnaces and artifacts, which are among the oldest in the world, dating back to as early as 2000 BC [1]. These remnants provide profound insights into early technological innovations in Africa, showcasing the sophisticated metallurgical skills and societal organization of the people who once inhabited this area. While Lejja site has been studied archaeologically, its tourism potential remains unexamined. Furthermore, there is limited awareness among both local and international audiences about the site's value, and no robust tourism framework has been implemented to harness its potential. As a result, Lejja continues to suffer from underpromotion, lack of preservation efforts, and minimal integration into national heritage tourism circuits. Addressing these gaps is essential to reposition the site as a viable cultural tourism destination capable of contributing to local economic development, education, and national identity preservation.

Despite its significant historical value, the site remains relatively obscure and

underutilized within Nigeria's tourism sector and underpromoted in the global tourism market. It is important to note that series of archaeological investigations of Lejja Archaeological Sites has been going on by researchers, but none has looked at the tourism dimension of the site.

Tourism activity in general, with the heritage tourism sector in particular, represented the second inflow of foreign currency to Mexico in 2019 (pre-pandemic), with more than USD 24 million [2]. Mexico's heritage tourism sector, primarily for leisure, attracts over half of tourists, highlighting its importance in the national and local economy, promoting research, conservation, and cultural revitalization, and promoting research and conservation [2]. Tourism drives economic growth, generates revenue, creates jobs, and promotes cultural exchange, with heritage tourism preserving historical sites and raising cultural awareness globally [2]. The Lejja Archaeological Site, with its unique offerings, presents an untapped opportunity for Nigeria to enhance its cultural tourism portfolio. This requires strategic marketing to attract domestic and international tourists. The article aims to transform the Lejja Archaeological Site into a hub for heritage tourism in Nigeria, addressing challenges such as inadequate infrastructure, limited awareness, and insufficient government support.

Heritage tourism explores a place's culture, history, and societal behavior, while cultural tourism involves exceptional travel to experience new cultures or attractions. Promotion of cultural tourism invokes the cultural importance of a place to the world. Karnataka, a southern state of India, is a place with rich values of customs and heritage importance. Karnataka owes a culture of a few thousand years past that still flourishes with all the rich, valued feathers in its crown [3]. Heritage tourism endows the dual benefits of the social and economic benefits; it develops the cultural heritage image of a place. Heritage tourism develops a country's economic facts with employment and development of infrastructure of the place. Beside the advantages if being over used they also exploit the cultural value of a place [3]. Tourism product are the packages of businesses with sub-services including travel, accommodation and food being an intangible product requires more skill to sell in the tourism market [3]. Lejja has unique cultural significance that awakens study among researchers from different disciplines like archaeologist, tourism experts, historians, anthropologist, geography, geologist and others.

The Lejja Archaeological Site in Nigeria faces underdevelopment and underpromotion for tourism due to inadequate infrastructure and lack of global promotion, presenting a missed opportunity for Nigeria's cultural and heritage tourism. Collaborating with travel agencies, international organizations and local communities can enhance promotional efforts, preserve heritage sites, and promote sustainable practices, ensuring equitable distribution of benefits and economic opportunities. The site also requires government support and policy frameworks for successful development and marketing. Incentives for private sector investment are crucial. Harnessing and effectively marketing the Lejja site could transform the site as a leading tourism destination in Nigeria. The researcher argued that Nigeria should nominate the sites for inclusion on UNESCO's World Heritage List and ICH Representative List. The article discusses marketing strategies for the Lejja Archaeological Site in Nigeria, emphasizing its cultural, historical, economic,

educational, and cultural benefits, emphasizing community involvement and government support. The study explores how Lejja Archaeological Site can be effectively harnessed and marketed for sustainable tourism destination in Nigeria.

1.1. Brief overview of Lejja and its archaeological site

Lejja is an agrarian community made up of patches of settlements, with each family compound surrounded by sparsely thick forest. It is located at about 14 km south-west of Nsukka in Enugu State, Nigeria. Approximately, it is within longitudes $7^{\circ}18' E$ and $7^{\circ}25' E$, and latitudes $6^{\circ}41' N$ and $6^{\circ}48' N$. Lejja is among the towns in Nsukka Local Government area. It is made up of 33 villages. Lejja is very close to Nsukka urban. The community consists of three major quarters and two local government council wards. The three quarters are Ejuona, Uwani and Ekaibute (rendered as 'Akibute' in some literature), while the wards are Ejuona/Uwani and Ekaibute wards. According to the 2006 census report, the community is inhabited by well over 80,000 people [4]. The Lejja Archaeological Site, located in Ootobo Ugwu Dunoka Ejuona Lejja in Nsukka, Enugu State in southeastern Nigeria, is one of the most significant archaeological sites in West Africa (**Figure 1**). The signpost is at the entrance of the town.

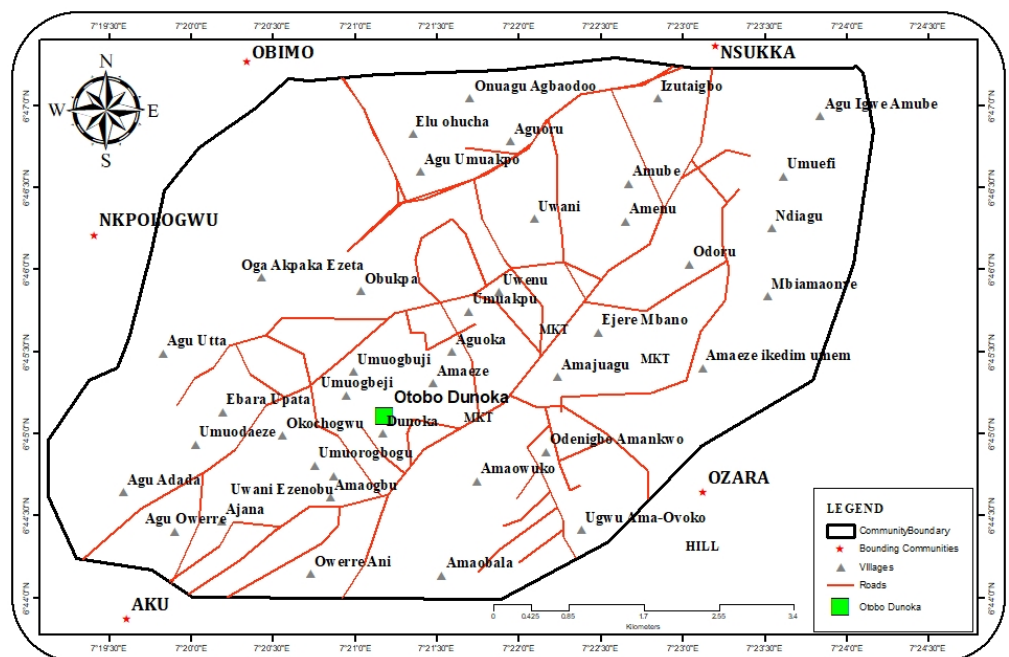


Figure 1. Map of Lejja showing the study site (Ootobo Dunoka).

1.2. Literature review

The tourism potential of archaeological sites, especially in Africa, has gained increasing attention as a means of promoting cultural heritage and generating economic growth. This section reviews existing literature on archaeological tourism, heritage management, and marketing strategies, with a focus on Nigeria and similar contexts. The literature is grouped into key thematic areas relevant to the harnessing and marketing of the Lejja Archaeological Site for tourism develop.

1.2.1. Conceptual framework

Archaeology: Archaeology is the study of past human behavior through the systematic recovery and analysis of material remains or objects [5]. These remains, called artifacts, are collected not as an end in themselves but as a means of obtaining information about their makers, the lives they lived, and how they related to the environment [6]. Anything created by or utilized by man to accomplish goals is considered an artifact, whether it be made of stone, wood, clay, copper, or iron. These artifacts, whether large or small, are evidence of past cultures. Thus, artifacts are proof of those before us and serve as a physical connection to our past [5]. Andah and Okpoko [6] note that the interest of archaeologists was in finding out who, how, why, and when prehistoric humans lived.

Archaeological Tourism: Archaeological Tourism is a subset of cultural heritage tourism that involves visiting sites of historical and scientific interest related to ancient civilizations and human history [7]. Regardless of Nigeria's huge potential in natural and human resources, it is obvious that Nigeria is still an underdeveloped country [8]. Archaeology is represented in the discipline or practice of tourism by the "Cultural Tourism" [8]. Archaeology is one of the cardinal pillars holding the tourism sector of Nigeria together [9]. Tourism involves temporary relocation of individuals to a destination for a minimum of 24 h, including archaeological sites and their artifacts. The resources are diverse, vibrant, and challenging, making them suitable for tourism development in the country and beyond [9]. Archaeological materials retrieved fieldwork hold significant historical and tourism potential, attracting both domestic and foreign tourists due to their romantic and aesthetic appeal [8]. Archaeological tourism, linked to cultural tourism, offers educational and recreational opportunities, allowing tourists to engage with past human development through material remains, stimulating cultural pride and economic growth [7].

Archaeological tourism is a prospective tourism form to exalt the country branding [10]. Archeological tourism is a type of social tourism, which plans to advance open enthusiasm for prehistoric studies and the preservation of recorded locales [11]. Archaeological tourism encompasses various aspects of archaeological advancement, such as visiting sites, exhibitions, elucidation centers, reenactments of events, and the rediscovery of indigenous items [12]. Archaeology and tourism foster economic growth, job creation, and socio-cultural exchange by encouraging travel without financial gain, both nationally and internationally [8].

Heritage tourism, a significant segment of global tourism, involves visiting culturally significant sites, with 37% of tourists being cultural tourists, aiming to preserve and develop these sites for future generations [3]. Cultural tourists explore and admire a destination's artistic potential, visiting archaeological sites or museums to explore fascinating discoveries. The individual may attend cultural festivals to witness and participate in events showcasing the rich cultural values of the Nigerian people [9]. Countries like Iran, Turkey, Indonesia, Pakistan, Brazil, among others, have benefited from grants aiming at promoting tourism that is culturally based [9]. Due to commercial interests, Addis Ababa is a major tourist destination in Ethiopia, which is supported by international organizations such as UNESCO. Lalibela, Gondar, Axum, and Hadar, where Lucy skeletons were found, are among the main attractions.

Numerous of these locations are designated World Heritage Sites [13].

Tourism Marketing: Tourism marketing refers to the strategies employed to attract visitors, raise awareness, and enhance the visibility of tourism products or sites [14]. In the archaeological context, this includes storytelling, digital interpretation, branding, and destination image management.

1.2.2. Archaeological site marketing and tourism development in Nigeria

Nigeria hosts several notable archaeological sites such as Lejja Site (Enugu State), prehistoric iron smelting technology; Ile-Ife (Osun State), known for Yoruba bronze and terracotta arts. Nok site (Kaduna State) with ancient terracotta figurines; Oke-Idanre (Ondo State) rock shelters with historical significance; and Benin City (Edo State) moat system and the Oba's palace. Nigerian archaeological sites, both pre- and post-excavation, have become popular tourist destinations, offering satisfaction and education to both domestic and foreign researchers and tourists [15]. Museums store artifacts like pottery and sculptures after proper studies, but their impact on tourists depends on the quality of presentation in the gallery [9]. Archaeological sites and their discoveries are gaining attention due to their tourist appeal, with Nigeria's Lejja site being a popular destination for foreign researchers.

Despite their significance, these sites are often poorly maintained, underpromoted, and suffer from low visitation rates [16]. Archaeological site tourism development faces a lot of challenges. These include: lack of infrastructure, weak institutional support, and low public awareness. Many sites are not accessible due to poor road networks and lack of tourist amenities [17]. Lejja, for example, has no formal access routes or interpretive infrastructure, making it difficult for researchers and tourists to visit and engage with the site meaningfully. The infrastructural deficit not only discourages visitation but also limits investment potential. Government policies and funding are insufficient for site preservation and tourism development [18]. Nigeria lacks a coherent national archaeological tourism policy, and coordination among federal, state, and local authorities is often fragmented. There is low public awareness of the site. Ezenagu [2] notes that the general populace, including local communities, often lack knowledge about the historical value of sites. Lejja Archaeological Sites are prone to looting and degradation due to inadequate protection mechanisms.

It is also quite unfortunate that marketing archaeological sites in Nigeria lagged behind due to limited innovation. However, existing literature suggests several opportunities: Digital promotion, branding of heritage sites and community-based marketing: Use of virtual reality, 3D reconstructions, and social media to raise awareness and attract virtual tourists [19]. Creating a distinctive identity for each site (e.g., "Cradle of Iron Technology" for Lejja) can increase its appeal [20]. Engaging host communities in storytelling and cultural performances enhances authenticity and ownership [21]. Interpretative signage and guided tours. Proper interpretive tools help communicate archaeological value effectively [22]. The sustainable development of archaeological tourism in Nigeria hinges on the collaboration of multiple stakeholders, each contributing distinct but interconnected capacities. An integrated and participatory model ensures not only the preservation of cultural heritage but also equitable distribution of benefits across society. This approach ensures that policy,

funding, conservation, and community benefits are holistically addressed [23]. Such a framework should include a national strategy on heritage tourism that aligns federal, state, and community interests in a unified development agenda [24]. Stakeholder roundtables and advisory committees, composed of representatives from government, academia, civil society, and local communities, are crucial for guiding site development from inception and avoiding top-down decision-making [25].

The National Commission for Museums and Monuments (NCMM) plays a pivotal role as the primary custodian of Nigeria's archaeological heritage. It is tasked with the identification, protection, documentation, and promotion of heritage sites. However, the NCMM is frequently constrained by inadequate funding, manpower shortages, bureaucratic inefficiencies, and limited autonomy. These constraints hinder proactive marketing, community engagement, and infrastructural investment at key sites [26].

State tourism boards also have a role but often lack synergy with federal institutions. For greater impact, policy harmonization, increased budgetary allocations, and capacity-building programs are needed to empower governmental institutions at both national and sub-national levels [24]. Community participation is critical for sustainable site management. Local people are not only cultural custodians but also potential beneficiaries of tourism-related income through employment, entrepreneurship, and service provision. Excluding host communities from tourism development often leads to resentment, vandalism, or apathy [27]. Participatory approaches such as community-based tourism (CBT), benefit-sharing mechanisms, and cultural co-curation promote local ownership. When communities are integrated into decision-making and capacity-building programs, they are more likely to act as stewards of heritage resources. Private investors and NGOs play vital roles in the areas of funding, capacity development, marketing, and technological innovation in heritage tourism [28,29]. The private sector can provide critical infrastructure such as hotels, transportation services, and interpretive centers and can also leverage marketing networks to package heritage sites into appealing tour circuits [30]. NGOs often support activities related to conservation, heritage documentation, community training, and the promotion of gender-sensitive cultural programming [31].

Public-Private Partnerships (PPPs) have proven effective in other tourism sub-sectors, particularly ecotourism and cultural tourism, and could be tailored to Nigeria's archaeological context [32]. For example, co-management models, where government agencies focus on heritage preservation and regulatory oversight while private firms manage tourism services, have shown success in parts of East Africa, such as Kenya and Tanzania, and offer adaptable lessons for Nigeria [33,34]. Countries like Egypt, Greece, and Peru offer lessons in integrating archaeology with tourism. Best practices include: Heritage Tourism Master Plans, public-private partnerships and tourist education and experiential learning. These examples highlight the importance of site management plans, legal frameworks, and visitor interpretation systems [35].

Universities and research institutions are essential for scientific excavation, heritage documentation, cultural mapping, and historical interpretation [24,36]. Their contributions ensure that site narratives are accurate, culturally sensitive, and educationally enriching, forming the foundation for interpretive storytelling and heritage tourism planning.

Collaborative research projects especially those involving both local and international scholars not only elevate the global visibility of Nigeria's archaeological sites but also contribute to curriculum development, academic publishing, and long-term heritage advocacy [37]. Such academic engagements help foster interdisciplinary insight, community inclusion, and site-specific conservation. More importantly, academic involvement ensures that tourism development is grounded in authentic cultural values, rather than being distorted or over-commercialized for entertainment [38]. Studies by [25,39] emphasize that African archaeological heritage sites such as Great Zimbabwe and Mapungubwe have universal value and cultural resonance that could rival global icons like Machu Picchu. Similarly, [24,40] note that Nigeria's prehistoric sites like Lejja (iron smelting), Ile-Ife (bronzes and terracotta), and Nok (figurines) are of outstanding cultural significance, yet remain under-marketed and underdeveloped. While sites in Southern and Eastern Africa have benefited from international visibility and UNESCO recognition, most Nigerian sites have not leveraged their heritage capital for global tourism appeal. According to [17,41], lack of basic infrastructure such as road access, signage, accommodation, and interpretation centers has discouraged investment and visitation at key Nigerian heritage sites. Lejja, despite its archaeological value, lacks these infrastructure and visitor facilities. Ekechukwu [42] adds that local communities often view these sites as relics, not assets. Conversely, case studies from East Africa (e.g., Kenya and Tanzania) show how public-private partnerships have helped create visitor-ready heritage attractions [23]. Infrastructural gaps in Nigeria are compounded by weak institutional collaboration, while East African models demonstrate scalable co-management structures. Studies like Salazar [43] argues that community inclusion is vital for sustainable archaeological tourism. In places like Ile-Ife and Oke-Idanre, local custodians and traditional institutions hold deep knowledge and symbolic control, but are rarely consulted in tourism planning. In contrast, community-based tourism models in Peru and Ethiopia have demonstrated that local ownership increases site protection, income retention, and cultural authenticity [44]. Both Nigerian and international literature recognize the importance of local custodianship, yet implementation remains a weakness in the Nigerian context.

Most studies agree that poor digital visibility and branding hinder Nigeria's archaeological sites. Ezenagu [2] notes that unlike Egypt or South Africa, Nigeria has not invested in digital storytelling, virtual tourism, or strategic branding of its cultural assets. This is despite a growing youth population and diaspora interested in heritage travel. Meanwhile, Nigeria has similar potential but lacks coordinated digital marketing. Digital gaps must be filled to attract domestic and international tourists.

To thoroughly explore the harnessing and marketing of the Lejja Archaeological Site for tourism development, a qualitative method of research approach was employed. This method provides a comprehensive analysis of the site's potential and the effectiveness of various strategies for its promotion. The research methods and data sourcing include in-depth interviews, exploratory research, and field observations. Data are analyzed using a descriptive approach. Six people were interviewed in the course of the study. These include the community head (Eze Lejja), the chief priest of Adada Shrine, and three community members who are knowledgeable about the site. The researcher also used academic journals, books, reports, and articles relevant to the

topic as the secondary data collection. The view of the interviewee was explored to understand the impact of tourism and strategies for involvement. Site observations were made to assess the infrastructure and visitor experience. Photographic documentation was also used to gather photographic evidences Ootobo Dunoka Lejja was purposely sampled because the large slag blocks found in the area were extraordinary. Secondly, there are slag concentrations in the entire village. Thirdly, the site has been a center of discussion by the scholars and research groups for years but not in tourism dimension.

2. Materials and methods

To thoroughly explore the harnessing and marketing of the Lejja Archaeological Site for tourism development, a qualitative method of research approach was employed. The study adopt qualitative research design and data sourcing, which includes in-depth interviews, semi structured interviews, and site observations for data collection. The use of qualitative research methods is justified by the exploratory and interpretive nature of the study, which seeks to understand the complex cultural, historical, and socio-political dimensions of archaeological tourism development in Nigeria. The process was designed to elicit rich, context-specific insights from a range of key stakeholders, with a focus on the Lejja archaeological site in Enugu State. Qualitative approaches are particularly useful for uncovering meanings, values, and perceptions that cannot be quantified [45]. This method provides a comprehensive analysis of the site's potential and the effectiveness of various strategies for its promotion. The flexibility of this method allowed for the inclusion of follow-up questions, enabling respondents to elaborate on emerging issues. The interview section was guided by an interview schedule developed around the study's core themes, which lasts for 30 to 60 min. The fieldwork spanned a period of two weeks, during which the researcher visited the Lejja site. Interviews were scheduled in advance and conducted at venues convenient for the participants. The instruments used were field notebook, photographic documentation and audio recordings. Audio recordings aid accurate transcription and interpretive of interviews. The data collected through interviews, observations, and field notes were analyzed using thematic analysis, a qualitative technique suitable for identifying, analyzing, and reporting patterns (themes) within data [46]. These observations were later triangulated with interview data to enrich the analysis and validate themes. Six people were interviewed in the course of the study. These include the community head (Eze Lejja) (see **Figure 2**), the chief priest of Adada Shrine, and five community members who are knowledgeable about the site. Purposive sampling was used to select the participants. A purposive sampling strategy is employed to ensure that participants are selected based on their relevance, expertise, or lived experience in relation to the research objectives. This approach is consistent with recommendation [47] that in-depth qualitative inquiry should focus on "information-rich" cases. The researcher also used academic journals, books, reports, and articles relevant to the topic as the secondary data collection. The view of the interviewee was explored to understand the impact of tourism and strategies for involvement. Site observations were made to assess the infrastructure and visitor experience. Photographic documentation was used to capture site condition, structures,

and interpretive elements. Ootobo Dunoka Lejja was purposely sampled because the large slag blocks found in the area were extraordinary. Secondly, there are slag concentrations in the entire village. Thirdly, the site has been a center of discussion by the scholars and research groups for years but not in tourism dimension.



Figure 2. Ugwuoke Nweani (Eze Lejja).

3. Results

Description of important cultural artifacts

This is the result of the field research carried out in Lejja Archaeological Site. Lejja Archaeological Site yield a lot of iron debris in form of slags and other cultural materials. This site has its major slags concentration on Ootobo Ugwu Dunoka village square and its environment. Ootobo Ugwu, the sacred public square in Lejja, has monuments that shows its heritage significance. These monuments include Odegwo, Utu Udele Igwe, Oya Ogwu, Oshuru, Okiti Akpurigedege Oshimiri, Uzo mma, Eze Mkpuma and Onu Adada [4]. These monuments have various rules attached to them which preserves them. Such rules help the community to make the distinction between the holy, the sacred, the secular and the profane.

Ancient Iron Smelting Furnaces and Slag Blocks: Lejja is known as Iron smelting community due to the evidence of large iron slag debris scattered all over the town. The slag is visible on the surface in many places. The road that leads to the site were full of debris of slags and stones that have some iron deposit in them known as encrustation according to informant. The major archaeological site was located in Ootobo Dunoka village in Lejja having largest concentration of slag blocks. This is the isi Ootobo. By observation, some of the iron debris are in form of slag blocks, which were arranged in rows as seat during village meetings. Eze-Uzomaka [1] asserts that the site is renowned for its ancient iron-smelting technology, which has been radiocarbon dates back to approximately 2000 BC, making it one of the oldest known metallurgical sites in the world. They used different parameters to determine the age which includes; level of overboard, checking the furnace, checking the stratigraphy, from the point of intangible heritage (how the intangible connects with the tangible) and how it also connects to the worldview of the people that are still existing. When they visited the site, they found out that there is a big connection between the people

living in Lejja today and iron smelting. The site is distinguished by the presence of over 800 iron-smelting furnaces, tuyères, numerous iron slag heaps, and other associated artifacts [1]. For Okafor [48], the slags blocks were of different sizes. The diameters of the slag blocks range between 31 and 56 cm, with heights ranging from 22 to 36 cm. He asserted that some of the slag blocks are broken, but the unbroken ones have an average weight of between 34 and 57 kg. Eze-Uzomaka [1] also maintained that the slag blocks weighs between 34 and 57 kg. Iron smelting is currently extinct in Lejja, and there are no active iron smiths in the entire community [1]. This site is of interest to researchers from different disciplines, of which tourism researchers were inclusive. The site not only sheds light on early industrial activities in the area but also provides crucial evidence of the cultural and social structures that supported such technological advancements.



Figure 3. A road sign on the outskirts of Nsukka giving direction to Lejja.

These remains provide a remarkable insight into the technological advancements and cultural practices of the early inhabitants of the area. The origins of the Lejja site are closely tied to the early settlement patterns in the Nsukka area, which was inhabited by communities that were skilled in various forms of craft and metallurgy. A signpost is at the entrance of Lejja, home of the iron smelting site (see **Figure 3**). The iron-smelting technology evident at the site suggests a highly developed knowledge of metalworking, which played a crucial role in the socio-economic development of these communities. The ability to produce iron tools and weapons would have given these communities a significant advantage in agriculture, hunting, and warfare, facilitating the growth of complex social structures and trade networks. Beyond its technological significance, the Lejja Archaeological Site holds immense cultural and historical value. It offers a window into the ritualistic and ceremonial aspects of the ancient communities that lived there, as suggested by various artifacts and the arrangement of the furnaces. The site is believed to have been a hub of significant cultural exchanges and a center for the production of iron tools and weapons, which likely played a crucial role in the socio-economic development of the area. The importance of Lejja extends to its contribution to the broader narrative of African history, challenging misconceptions about the technological capabilities of ancient African societies and highlighting the Lejja's rich heritage. Apart from the monuments, the site is divided into four (4) sections; Ishi Otobo, Obi Izu, Okpu Ogwugwu, and Ohu Otobo representing the four (4) market days. The Ishi Otobo (**Figure 4**), which has the boundary length of 122 m is the main section of the square, it served as parliamentary

section where the council of elders meet to preside over the affairs of the community.



Figure 4. View of in Situ Slags in Otobo Ugwu Dunoka Ejuona Lejja (Ishi Otobo).



Figure 5. A mound in the Ejuona square surrounded by slags at the base Blast furnace-shaped (Odegwo deity).

Odegwo Deity: The monument is at the entrance of the northern section of the site (see **Figure 5**). According to informant, Odegwo is associated with fertility and procreation. The deity relates to the traditional practice of registration of birth, especially those that their biological father is of Lejja origin. Any child born in Dunoka (the village where the square and its monuments are located) was brought to this monument for the traditional ceremony of registering of birth. The items used during registration depended on the gender the child. Male children are registered with alligator pepper, kola nut and a cock that must have crowed, preferably one of the red-feathered ones called egbele awu and females were registered using dried fish, yellow orche (odo), kolanut and palm oil. The informant revealed that the monument is worshipped by the entire villages in Lejja. The officiating priest of this deity is an adult man of Umulolo lineage from Dunoka, preferably the oldest man of the lineage. The logic of the choice of priest is based on knowledge of traditional maternity and post-partum health care which was said to be the preserve of the Umulolo. Be that as it may, all women experiencing their menstrual cycle are forbidden to pass through the square [4]. Those who violate that rule are said to have their cycle continue indefinitely until the Odegwo deity is propitiated.

Ojirosi or Ogirisi (Newbouldia Beauv) Trees: At the entrance to Ishi Otobo is the presence of Ogirisi trees (Newbouldia Beauv) called Ojirishi in Lejja dialect. The

“Ogirisi” is three (3) in the site which shows that it is a communal ownership by the three quarters that make up Lejja (Ejuona, Uwani and Akibute) (see **Figure 6**). The three trees are seen as male that owns the land, hence the Lejja people refer it as Ojirioshi di new ala [4]. They were used for treating wound, stomach ache and malaria. According to Opata and Apeh [4], the ogirisi trees stand as store houses of indigenous medical knowledge. The trees also remind the people of the herbal pharmacy used by their forebears, especially as parts of them were used for the dressing of wounds and for treating feverish conditions associated with the tedious tasks of sourcing the haematite used in smelting and making charcoal [4].



Figure 6. Ogirisi/Ojirioshi tree.

Eze Mkpume: At the northern edge of the slag embankment lies a large cylindrical slag block known as Eze mkpume (king of stones) (see **Figure 7**). It was believed that it represents the chief smelter and is regarded as the oldest of the slags, which is different from other slags in the entire community. The chief custodian named Ugwoke Nwani (see plate 1) said that this particular slag block is considered sacred, and no one touches, sits on, or spits on it, as it symbolizes the authority of the ancestral father of Lejja. The prohibition against touching the slag block is also a gesture of respect towards the elders. Behind the Eze mkpume slag block is another special slag block used by the king of Lejja as a seat during social gatherings. The Eze mkpume is surrounded by three (3) slags designated for the three eldest persons of the three quarters (Ejuona, Uwani, and Akibute) in Lejja. Adjacent to the king’s seat on the left-hand side is a slag block typically occupied by the highest chief, known as Eze-Uwani (King of Uwani). Another slag block is designated for another high chief, known as Eze Akaibute (King of Akaibute). While both are high chiefs in their own right, they are ancestrally subordinate to the King of Lejja. The arrangement of the village square positions men on the left-hand side of the King of Lejja, while women sit on the opposite side, near the masquerade house shaped like a large furnace. The central one is associated with warfare and is strictly untouched, which is called “Oshuru” (see plate).



Figure 7. Eze Mkpume.



Figure 8. The shrine of Oshuru.

Oshuru Deity: Oshuru is a striking monument, sculpted in the form of a massive yam mound, and it stands prominently at the northern edge of the village square (see **Figure 8**). Deeply symbolic, Oshuru is closely associated with warfare, serving as a constant visual reminder to the villagers of the ever-present need to be vigilant and prepared to defend their land. Constructed from rugged iron slag blocks, the monument exudes a sense of resilience and strength. At its summit lies a covering of flat, stone slabs. According to local tradition, these stones conceal a mysterious hole of unknown depth believed to symbolize the insatiable nature of humankind, a void that can never be truly filled. This central slag structure is deeply associated with warfare and remains strictly untouched, as shown in Plate 10. Any unauthorized attempt to make contact with it provokes a swift and unified response from the village youth, often resulting in physical punishment for the offender. According to an informant, Edoga, the site is more than a symbol of military readiness it embodies truth itself. Anyone who approaches it is expected to do so with honesty, as the monument demands sincerity and moral integrity from all who come near. The libations offered during the veneration of Oshuru require palm wine sourced specifically from oil palm trees native to Lejja. As part of the ritual, the officiating priest pours the wine directly into the cavity at the summit of the mound before any consumption begins. The yams used in the ceremonial feast must be cultivated by the individuals responsible for preparing the sacred meal, ensuring a personal connection to the offering. Additionally, the firewood used for cooking must be obtained from the *Akpaka* tree (*Pentaclethra macrophylla*), further grounding the ritual in local ecological and cultural specificity. Historically, the *Akpaka* tree was used by ancient smelters, linking it to both metallurgy and ritual significance. According to Opatá and

Apeh [4], the items used in the worship of Oshuru are strictly prohibited from touching the ground or being taken home. Instead, all remnants are ritually deposited into the cavity at the top of the mound. While this may seem wasteful from a material perspective, the act holds deep symbolic meaning: it reflects the deity's role in protecting the community's ancestral land during times of conflict, emphasizing spiritual victory and communal survival over material gain in warfare.

Utu Udele Igwe: Beside the Oshuru monument stands a revered tree known as Utu Udele Igwe, regarded as a powerful symbol of justice (see **Figure 9**). Climbing the tree or sitting on its roots is strictly forbidden, as it is considered sacred. Utu Udele Igwe serves as another important monument within the Lejja iron smelting site, centrally positioned and historically significant. According to local informants, the tree functioned as a public warning, a constant reminder to wrongdoers that justice is inevitable. In the past, individuals found guilty of serious offenses such as theft of crops or domestic animals, adultery, or the sale of fellow citizens into slavery were bound to this tree as part of their punishment. Its enduring presence reflects the community's commitment to moral accountability and the social order. Among the taboos associated with Utu Udele Igwe is the prohibition against women sitting at the foot of the tree. Additionally, its leaves are strictly forbidden for use in cooking. According to local belief, any meal prepared with the leaves of the tree will never cook properly. As explained by an informant, this prohibition is symbolic: cooking alters the natural form of food, whereas justice, represented by the tree, is believed to be constant and unchanging. Using the leaf in cooking would therefore contradict the core value the tree embodies: the unwavering and incorruptible nature of justice.



Figure 9. Utu Udele Igwe.

Okiti Akpuruigedege Oshimiri (the mask-spirit house): The monument, resembling a blast furnace, symbolizes the Lejja people's iron-smelting heritage, resonating with traditional smelting kitchens and fostering historical continuity (see **Figure 10**). It serves as the spiritual abode of the Omabe masquerade. Beyond its symbolic significance, the monument also functions as the emergence point for the Omabe masquerades, who proceed from there to perform in the village square during festivals and rituals. The Omabe masquerades are regarded as incarnate beings or ancestral spirits believed to reside in Ugwu Dunoka, Lejja. The masquerade cult is traditionally overseen by the male members of the community, who serve as its

custodians. According to informants, important ceremonies and sacrifices are performed within the sacred house by the chief smelter, known as Ota Mkpume, further reinforcing the link between spiritual practice and the community's iron-smelting heritage. The desecration of the masquerade is the desecration of the land itself [4]. Women sits at the base of the building because people from the community believed that Adada Shrine is the mother of Omabe. Opata and Eze-Uzomaka [49] observe that women are permitted to sit at the base of this structure because, as they argue, women traditionally "own the kitchen." The structure itself is interpreted as a symbolic kitchen, a place where stone is 'cooked' to produce iron, thus aligning with the gendered association of women with domestic spaces and culinary roles. The Lejja community's cultural and technological practices, despite its symbolic association with a kitchen, emphasized the masculine nature of iron smelting, a traditionally male-only activity. An ancient workshop on Ala Nwa Nnadi, behind Okiti Akpuruigedege Oshimiri, houses the largest in situ slag block and expansive furnace wall, showcasing the area's rich iron-smelting heritage.



Figure 10. Okiti Akpuruigedege Oshimiri front and back view (The mask-spirit house).



Figure 11. Okpu Ogwugwu (the third part of the site).

Okpu Ogwugwu: Okpu Ogwugwu is a designated area within the square that serves as a playground for children, where they engage in play, often using the sand. Spanning approximately 54.3 m in boundary length, Okpu Igwugwu provides a

spacious section dedicated to the younger members of the community, allowing them a place to gather, interact, and enjoy their childhood (see **Figure 11**).

Obi Izu: Obi Izu is located just after Okpu Ogwugwu and serves as a crucial space for the community. This section, covering approximately 71 m in boundary length, functions as the inner chamber of the council of elders. It is here that the elders convene to deliberate and make critical decisions on pressing matters affecting the community (see **Figure 12**). The Obi Izu holds a central role in the governance of the village, symbolizing the wisdom and authority of the elder leaders in shaping the future of Lejja.



Figure 12. Obi Izu and Ukwu Ibi.



Figure 13. Ohu Ootobo (the fourth section).

Ohu Ootobo: The final section of the site showcases the Ukwu Ibi tree, located between Obi Izu and Ohu Ootobo (see **Figure 13**). The tree symbolizes a ritual concept where only one tree can mature at a time, indicating that two captains cannot be present on a ship. Local informants claim that the tree's leaf and seed were studied in a herbarium, but researchers have yet to identify the species. The tree stands in a village known for producing the king of Lejja, a cultural hub and meeting point for 33 villages. Ohu Ootobo, a 46.9-m section of the village square, is a vital site for community rituals, enhancing its central role in Lejja's spiritual and social life.

4. Discussion

The discussion is to assess the tourism potentials of the features in Lejja Archaeological Site. The features offer untapped potential for sustainable tourism development as there is a huge global interest in heritage and cultural tourism.

4.1. Tourism potentials of archaeological features in Lejja archaeological site

Lejja's ancient iron smelting furnaces and slag blocks, dating back 2000 BC, offer a rich opportunity for educational, cultural, and heritage tourism, connecting Africa's technological past and attracting domestic and international visitors. The furnaces and slag blocks showcase early indigenous iron technology innovation, attracting archaeologists, historians, and researchers. Ideal for archaeological field schools, they offer guided tours, interpretations, and exhibitions, showcasing Indigenous Knowledge Systems.

The myth of metallurgy's introduction from Africa is challenged by the spiritual and ritual significance of smelting in Lejja, enhancing cultural tourism and iron-related ceremonies. It also has community-based and eco-tourism potential. Tourists can interact with the local community, artisans, and elders who are knowledgeable about the traditional uses and stories surrounding the furnaces and slag. Community-managed tourism programs can offer homestays, local crafts, and cultural performances, provide income while preserve heritage. The furnaces are often surrounded by forests and natural landscapes. Eco-trails leading to smelting sites, with interpretive signage, can blend heritage and nature tourism. The site can be developed into an open-air museum where furnaces and slag are preserved in situ with informative displays.

With 3D scanning and virtual reality, the site could be digitized for global audiences, allowing virtual tours that promote international interest. Thus, it has museum and digital tourist potential. The site creates economic opportunities for the community and state at large. Tour guiding, security, site maintenance, hospitality, and craft sales provide employment for the local community. The sale of local products to tourists, like cultural attire, can stimulate micro-enterprises. The ancient iron smelting furnaces and slag blocks of Lejja are a priceless cultural and scientific heritage with strong tourism potential. They offer a platform for learning about Africa's technological past, celebrating indigenous knowledge, and promoting sustainable rural development through heritage tourism.

The Odegwo Deity, a sacred monument in the Lejja archaeological site, attracts pilgrims and spiritual seekers for its cultural identity and religious tradition, offering opportunities to witness rituals and libation practices. Odegwo, a traditional Lejja site, attracts visitors seeking spiritual solutions and deep insights into their worldview, integrating natural and spiritual elements into indigenous belief systems. Odegwo, a sacred site in the Lejja heritage complex, offers educational tourism opportunities for students and researchers studying indigenous spiritual systems and historical archaeology. For tourists seeking quiet reflection or spiritual rejuvenation, the sacredness of the site offers an ideal environment. The Odegwo Deity is more than a religious symbol; it is a living heritage site that reflects the spiritual resilience and

cultural richness of Lejja. When carefully integrated into a respectful tourism framework, it can enhance cultural appreciation, support local livelihoods, and promote sustainable heritage tourism. By combining spiritual, cultural, and archaeological value, Odegwo offers a distinct experience that can captivate both the curious traveler and the devoted pilgrim.

The Ojiroshi or Ogirisi tree, also scientifically known as *Newbouldia laevis*, is a sacred symbol in Igbo communities, particularly in Lejja. As part of the Lejja Archaeological Site, it offers unique eco-cultural tourism value and highlights past continuity. It can attract tourists interested in indigenous African religions and ancestor veneration. The tree is used in rituals involving oath-taking, peace settlements, and spiritual cleansing. Tourists can witness or learn about these symbolic practices under guided cultural programs. Visitors can explore traditional stories and beliefs associated with the Ogirisi, learning how it has served as a spiritual boundary between the living and the ancestral world. The Ogirisi tree, known as the “tree of life,” is a popular attraction for botanical and eco-tourists due to its healing properties in traditional Igbo medicine. The tree is used in treating ailments such as arthritis, malaria, and wounds. Lejja’s sacred groves, featuring Ogirisi trees, can be developed with interpretive signage, combining nature conservation and cultural education, offering eco and botanical tourism potential, and attracting tourists interested in African justice and spirituality. Botanists, ethnographers, archaeologists, and historians can study the tree’s role in Lejja’s socio-spiritual and environmental systems. Tourists can learn how the community’s respect for the tree reflects sustainable indigenous practices that protect both nature and heritage. Elders and cultural custodians can share oral traditions around the Ogirisi tree, enriching the visitor experience. The Ogirisi tree is part of a broader Lejja Heritage Trail linking monuments, shrines, and furnaces, creating a holistic experience for visitors. The Ojiroshi/Ogirisi tree in Lejja represents a convergence of cultural memory, ecological heritage, and spiritual symbolism. When responsibly developed, its tourism potential includes cultural enlightenment through sacred traditions, ecological awareness via conservation initiatives, spiritual experiences through rituals and meditation, and community empowerment through storytelling and economic participation. The Ogirisi tree is not just a tree—it is a living monument of identity, spirituality, and indigenous knowledge, offering an enriching experience for tourists from all walks of life.

Eze Mkpume, literally meaning “King of Stones,” a sacred stone arrangement in Nigeria’s Lejja Archaeological Site, holds significant spiritual, historical, and cultural significance. Its unique feature presents significant tourism potential in spiritual, cultural, educational, ecological, and community-based sectors, attracting tourists interested in African traditional governance and cultural symbolism. Eze Mkpume, a revered site in Lejja, offers educational programs for tourists and learners. It serves as a gateway between the physical and spiritual worlds, appealing to those seeking mystical experiences. The site’s aesthetic appeal and ecological setting provide eco-cultural learning experiences. Eze Mkpume is more than a stone formation; it is a cultural landmark that embodies the identity, spirituality, and historical consciousness of the Lejja people. With thoughtful development and preservation, it can serve as a heritage tourism site for cultural exploration. Eze Mkpume, as part of the broader Lejja archaeological heritage, has the potential to become a flagship attraction that

showcases the depth of African indigenous history and belief systems to the world.

The Oshuru deity, symbolized by a yam-shaped mound at Lejja Archaeological Site, holds significant spiritual and cultural significance, offering significant tourism potential. The Oshuru mound, as a shrine and spiritual symbol, offers visitors a window into traditional Igbo spirituality. Tourists interested in African belief systems can witness or learn about rituals, such as libation pouring, prayers, and sacrifices, which emphasize communal protection and moral order. The indeterminate hole at the mound's top, symbolizing the insatiable nature of man, along with its association with warfare and truth, can attract spiritually inclined tourists and scholars of indigenous philosophies. The site's connection to truth and justice creates a space for reflection and cultural appreciation. Unique rituals such as the pouring of palm wine into the cavity and the exclusive use of local materials (e.g., yams grown by ritual cooks and Akpaka firewood) can be curated as cultural performances or educational displays for visitors, especially during festivals or special heritage weeks.

Oshuru, built with iron slag offers archaeological insight into prehistoric metallurgical practices and can be integrated into heritage trails for spiritual expression. Lejja's historical-spiritual site, promoting field studies and academic interest, offers a unique blend of indigenous technologies and African archaeology, highlighting values like honesty and vigilance. Museums could feature replicas or digital reconstructions of Oshuru mound, incorporating VR or AR elements for remote tourists to explore its symbolism and ritual functions. Tourism development can create employment and preserve indigenous knowledge by involving local youths and elders, while existing social enforcement in Oshuru reflects a living heritage worth documenting and sharing. Tourists can explore Oshuru, a heritage site with spiritual, historical, and cultural significance, connecting it to Utu Udele Igwe and the Omabe masquerade house, enhancing their understanding of the site. Oshuru stands as both a monument to ancestral warfare readiness and a moral compass for the Lejja people. Oshuru site, strategically developed, can become a key hub for cultural and heritage tourism in southeastern Nigeria, catering to archaeologists, spiritual seekers, students, and cultural enthusiasts.

Utu Udele Igwe is a sacred tree located at the heart of the Lejja archaeological site, historically and symbolically linked to justice, moral order, and traditional law enforcement. As one of the key spiritual monuments in Lejja, it offers immense cultural, historical, and educational tourism value, making it a prime candidate for heritage-based tourism development. Utu Udele Igwe is deeply symbolic, representing justice, truth, and accountability. In traditional times, offenders such as thieves, adulterers, and those involved in betrayal or slavery were tied to this tree for public judgment. This powerful history can attract tourists interested in indigenous legal systems and African spirituality. Visitors can learn about the unique taboos surrounding the tree, such as the prohibition against climbing or sitting on its roots, and the belief that its leaves cannot be used for cooking. These practices reflect the community's spiritual reverence and can be interpreted and showcased as part of a sacred traditions trail. Utu Udele Igwe contributes to a landscape where technology, spirituality, and governance coexisted. This holistic view of heritage is appealing to cultural and archaeological tourists. The site serves as a physical reminder of the Lejja people's indigenous justice system. Utu Udele Igwe, like other sacred trees, offers a

connection between spirituality and environmental conservation. Its protection as a sacred species emphasizes the traditional ecological knowledge embedded in Lejja's heritage. The tree can be included in eco-cultural tours alongside other significant trees in Lejja (e.g., Akpaka, Ogirisi, Ukwu Ibi), promoting awareness of the cultural role of nature in indigenous communities. Utu Udele Igwe, a sacred tree with cultural significance, can become a centerpiece in Nigeria's indigenous heritage tourism through community engagement and strategic development.

Okiti Akpuruigedege Oshimiri, often referred to as the Mask Spirit House, is a culturally significant monument in Lejja, uniquely shaped like a blast furnace, a nod to the community's rich history in iron smelting. Serving both as a spiritual site and a symbol of ancestral technology, this structure holds considerable potential as a destination for cultural heritage and archaeological tourism. The monument is where the revered Omabe masquerades, seen as incarnate ancestral spirits, emerge to perform during traditional ceremonies. This mystical association makes the site spiritually powerful and an attractive location for ritual tourism. As a sacred house, the monument embodies the spiritual essence of the community's ancestors, offering tourists a deep, immersive connection to Igbo cosmology and ancestral worship. The site's exclusivity, accessible only by initiated male custodians, adds a layer of mystery and authenticity that can appeal to special-interest tourists, such as anthropologists and spiritual seekers. It has link to ancient iron technology. The house's furnace-like shape is a direct representation of the furnaces used by Lejja's ancestors. This serves as physical evidence of ancient African metallurgy, offering a rare opportunity for archaeological tourism. During annual festivals, particularly in honor of Adada deity or Omabe cult ceremonies, masquerades parade through Lejja's central square. Tourists can be invited to observe these visually dramatic and spiritually rich performances. The house's spiritual ambiance and restricted access can appeal to visitors interested in mystical experiences, spiritual cleansing, or traditional African religious practices. The Omabe cult is often linked with moral correction, ancestral blessings, and social order. This may attract individuals seeking spiritual meaning or ancestral connection tourism. The site provides an opportunity for local community members—especially elders and custodians—to serve as storytellers and guides, preserving and transmitting oral traditions. With structured tourism, local artisans could sell Omabe-themed crafts, masks, or clothing, while youth can be trained as heritage guides, creating sustainable income streams for the community. Okiti Akpuruigedege Oshimiri, as the symbolic birthplace of the Omabe masquerades and a relic of Lejja's iron smelting heritage, holds profound cultural, spiritual, and historical tourism potential. It can serve as a core site for cultural heritage tourism, spiritual tourism, and educational exploration, while also providing the local community with opportunities for economic growth and cultural preservation.

Okpu Ogwugwu is a culturally designated section within the Lejja archaeological site known primarily as a children's playground. Measuring approximately 54.3 m in boundary length, this space offers not only a glimpse into traditional Igbo communal life, but also presents unique opportunities for family-oriented tourism, cultural education, and community-based tourism development. The designation of Okpu Ogwugwu as a special area for children within a sacred and historic square speaks volumes about the value placed on childhood and communal upbringing in traditional

Lejja society. This adds emotional and cultural depth for tourists interested in indigenous child-rearing practices. Okpu Ogwugwu showcases traditional urban planning and social structure, showcasing how communities allocate space based on age, function, and ritual significance. Okpu Ogwugwu has educational tourism potential, serving as a learning hub for schools, researchers, and children to explore Igbo customs, folklore, and communal values. It can host storytelling events, children's games, and music performances. During local festivals, the space can be used for children's cultural performances, drawing both domestic and international tourists during high seasons. While often overshadowed by the more sacred or ritualistic monuments in Lejja, Okpu Ogwugwu holds great promise as a family-friendly, educational, and cultural tourism site. By spotlighting traditional values around children and social space, it offers a unique angle within the Lejja archaeological narrative that can attract local, national, and international visitors, especially families, educators, and cultural researchers. Proper investment and community collaboration can transform Okpu Ogwugwu into a vibrant hub for youth engagement, cultural preservation, and sustainable tourism development.

Obi Izu is a historically significant section of the Lejja Archaeological Site, covering about 71 m in boundary length. Traditionally known as the inner chamber of the council of elders, Obi Izu served as the primary deliberative space for community elders to hold meetings, make crucial decisions, and mediate disputes. Its importance in the sociopolitical organization of ancient Lejja society offers unique potential for cultural, educational, and heritage tourism. Obi Izu offers an authentic window into indigenous systems of governance, consensus-building, and communal decision-making, making it appealing to tourists interested in African political history and heritage law. Visitors can gain insight into how justice, peacekeeping, and conflict resolution were handled through oral traditions and elder wisdom long before the advent of modern legal systems. It offers opportunities for schools and universities to host field trips and seminars on traditional governance, making it an ideal space for educational tourism. Elders can share ancestral stories, myths, and historical decisions made at Obi Izu, enriching the visitor experience through oral history performance. Obi Izu stands as a powerful testament to traditional African democracy, social order, and wisdom. As a tourism destination, it offers profound educational, cultural, and experiential value. When properly developed with infrastructure, guided interpretation, and community collaboration, it can become a key attraction for heritage tourists, researchers, students, and cultural enthusiasts seeking to engage with the living memory of indigenous African governance systems.

Ohu Otobo, covering approximately 46.9 m, is a significant ceremonial space located within the Lejja Archaeological Site. It serves as a key venue for community rituals, and spiritual gatherings. This open square functions not only as a sacred communal site but also as a symbolic meeting point for the 33 villages of Lejja. The space's historical, religious, and social significance offers substantial potential for cultural and spiritual tourism development. Ohu Otobo is actively used for rituals that bind the community, making it attractive to tourists interested in African spirituality and indigenous religious practices. The site hosts libation ceremonies, providing live experiences for visitors interested in traditional arts and customs. As a gathering point for all 33 villages of Lejja, Ohu Otobo embodies community cohesion and shared

identity—an attractive story for heritage tourists. It is a place of decision-making space. The square is historically linked to public dialogue and communal decision-making, which helps interpret the political organization of precolonial Igbo society for academic or cultural tourism. The sacred rituals held in Ohu Otobo attract both adherents and observers of African Traditional Religion, positioning it as a site for pilgrimage tourism. Located nearby is the mystical “Ukwu Ibi” tree, believed to symbolize leadership and spiritual authority. The mystery surrounding its unique botanical characteristics (not yet scientifically identified) adds intrigue and draws spiritually curious tourists and researchers. The Ohu Otobo site is enriched by surrounding economic trees and medicinal plants like Ukpaka, palm, cashew, and Acharya, which can be highlighted during eco-cultural tours. Interpretations can emphasize the relationship between sacred rituals and natural resources, appealing to eco-conscious travelers. Ohu Otobo stands out as a cultural powerhouse within the Lejja Archaeological Site, combining spiritual depth, historical significance, and communal vibrancy. When properly conserved and developed, it holds immense potential for cultural, spiritual, educational, and heritage tourism. Its integration into broader tourism circuits in southeastern Nigeria could enrich national cultural offerings and empower the local community economically and socially.

4.2. Community perception

Findings from stakeholder interviews indicate that the Lejja Archaeological Site is deeply valued by local residents as a source of cultural pride and ancestral identity. Community members, especially elders and youth leaders, expressed a strong willingness to participate in the development of the site for tourism. This aligns with Scheyvens’ model of empowerment in community-based tourism, which emphasizes that cultural pride and community participation are essential for sustainable tourism outcomes [50]. However, interviewees also expressed skepticism due to historical neglect and unfulfilled government promises. Inconsistent policy implementation hampers heritage development in Nigeria [51]. Thus, community perception reflects a duality: while there is strong intrinsic motivation and readiness to engage, long-standing distrust toward external interventions necessitates a trust-building and inclusive planning process to ensure long-term community support.

4.3. Cultural significance

The cultural and archaeological value of the Lejja site goes beyond its physical features, encompassing intangible elements such as oral histories, rituals, and clan-based custodianship. Interviews revealed that certain slag mounds and furnace remnants are considered sacred, reinforcing [52] assertion that heritage is both material and symbolic. This corresponds with Chhabra’s theory of authenticity in heritage tourism, which emphasizes the importance of preserving both tangible and intangible elements to provide a holistic cultural experience [28]. The findings support the notion that Lejja is a living heritage site, and any tourism development must be culturally sensitive and locally informed.

4.4. Tourism readiness

The current state of infrastructure and tourism services at Lejja is inadequate, with no visitor amenities, signage, interpretive centers, or trained personnel in place. This observation confirms Okpoko and Okpoko's findings that heritage tourism in Nigeria often lacks the enabling environment required for sustainable operation [53]. Nevertheless, the expressed willingness of community members to receive training and participate in tourism activities reveals a latent capacity that can be mobilized through strategic intervention. Gretzel et al. [54] propose that smart tourism technologies can bridge infrastructural gaps in resource-limited settings. Lejja could benefit from low-cost, high-impact solutions such as digital mapping, virtual tours, and mobile-based interpretive content. The community's receptiveness to digital tools suggests that the smart community approach where innovation is driven by collaborative, adaptive, and localized efforts is particularly applicable here. The integration of field findings with established tourism theories affirms that Lejja holds significant promise as a smart cultural tourism destination (**Table 1**). Its development must, however, be grounded in participatory frameworks that honor local traditions and harness digital innovations to overcome structural limitations.

Table 1. Common themes across cultural features and community practices at Lejja.

Theme	Monuments & Artifacts	Practices & Beliefs	Tourism Relevance
Ancestral Significance	Slag mounds, sacred furnace sites	Oral traditions, ritual observances	High cultural value; requires sensitive interpretation
Technological Heritage	Iron-smelting furnaces, slag blocks	Blacksmithing lineage, clan knowledge	Educational tourism, historical re-enactments
Sacredness and Custodianship	Restricted access places	Role of priests and traditional rulers	Community-guided tours; respect for rituals
Community Readiness	Community-led conservation efforts	Willingness to participate in tourism	Supports participatory development strategies
Intangible Heritage	Mythical origin symbols, ceremonial spaces	Spiritual angle of the features like Ojirioshi, Akpurigedege Oshimiri and others, Omabe masquerade Festivals, Ceremonies and rituals	Enriches visitor experience; supports cultural sustainability

5. Conclusion

This study has demonstrated that the Lejja Archaeological Site, rich in historical significance and cultural symbolism, holds immense potential as a heritage tourism destination in Nigeria. The research highlights the significance of incorporating community participation, cultural sensitivity, and smart tourism technologies into the development strategy for the site, drawing on insights gained from field interviews, thematic analysis, and alignment with heritage tourism theory. Heritage tourism theory emphasizes the relationship between tourism, cultural identity, and the preservation of both tangible and intangible heritage. The theory is grounded in the idea that heritage tourism must balance three core elements: conservation of heritage resources, authenticity and interpretation and community involvement. It asserts that tourists are drawn to historical sites and cultural experiences not only for recreation but for education, connection to history, and identity reinforcement [28]. Collaborating with academic institutions and cultural organizations can facilitate research and knowledge

exchange, further enriching the site's educational offerings. Lejja Archaeological Site's marketing strategy emphasizes a recognizable brand identity through user-friendly websites, SEO optimization, and social media engagement, reaching a global audience and fostering an online community. The Lejja Archaeological Site can boost its heritage tourism by hosting special events and cultural festivals, promoting local traditions and attracting visitors. Virtual and augmented reality (VR) experiences offer innovative ways for visitors to explore sites remotely, generating interest and enhancing their experience. The findings reveal that while the site is currently underutilized and lacks essential tourism infrastructure, there is strong local support and readiness to engage in sustainable tourism development. By addressing infrastructural deficits, enhancing digital visibility, and fostering inclusive stakeholder collaboration, Lejja can be transformed into a model of community-led and technologically supported heritage tourism. Ultimately, the study contributes to the broader discourse on sustainable and smart tourism in Nigeria, offering a replicable framework for the development of similar underexploited archaeological sites. Future research should include comprehensive archaeological assessments, digital site mapping, and longitudinal studies to address gaps in heritage development, and interdisciplinary studies combining archaeology, tourism, and smart technology innovation. Future research should involve comprehensive archaeological assessments, digital site mapping, longitudinal studies, and interdisciplinary studies combining archaeology, tourism, and smart technology innovation to address heritage development gaps.

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