



The effect of negative cultural impact of tourism on cultural sustainability in *Heissa* Island, Aswan-Egypt

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ABSTRACT

This study explores the negative cultural impacts of tourism on the Nubian community of *Heissa* Island in Aswan, Egypt. It aims to identify key cultural changes, assess the commodification of local traditions, and examine residents' perceptions of the social and cultural transformations caused by increasing tourism activity. A mixed-methods approach was adopted, combining quantitative data from 162 structured questionnaires with qualitative insights derived from contextual and case study analysis. The findings indicate that tourism has contributed to a decline in the use of the Nubian language, the emergence of unfamiliar social practices such as marriages with foreigners and rising social tensions within the community. Statistical analyses, including Chi-square tests, Pearson correlation, and Cronbach's Alpha, confirmed the presence of significant relationships and moderate internal reliability. The study recommends the development of culturally sensitive tourism policies, active involvement of local communities in planning processes, and the promotion of sustainable eco-tourism models that safeguard both cultural heritage and the natural environment.

KEYWORDS

Negative cultural impact, Sustainable development, *Heissa* Island, Nubian culture, Tourism in Aswan.

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أثر التأثيرات الثقافية السلبية للسياحة على الاستدامة الثقافية في جزيرة هيسا، أسوان، مصر

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الملخص

تتناول هذه الدراسة الآثار الثقافية السلبية للسياحة على المجتمع النوبي في جزيرة هيسا بمحافظة أسوان، مصر. وتهدف إلى تحديد أبرز التغيرات الثقافية، وتقييم مدى تسليع التقاليد المحلية، واستكشاف تصورات السكان المحليين تجاه التحولات الاجتماعية والثقافية الناتجة عن تزايد النشاط السياحي. اعتمدت الدراسة على نهج متعدد الأساليب يجمع بين التحليل الكمي من خلال استبيانات منظمة شملت 162 مشاركاً، والتحليل النوعي لدراسات الحالة والسياق المحلي. أظهرت النتائج أن السياحة أسهمت في تراجع استخدام اللغة النوبية، وظهور أنماط اجتماعية غير مألوفة مثل الزواج من الأجانب، بالإضافة إلى تصاعد التوترات الاجتماعية داخل المجتمع. وقد أكدت التحليلات الإحصائية (مربع كاي، معامل ارتباط بيرسون، ومعامل ألفا كرونباخ) وجود علاقة دالة وتوفر قدر مقبول من الموثوقية الداخلية للأداة المستخدمة. توصي الدراسة بوضع سياسات سياحية تراعي الخصوصية الثقافية، وتعزز إشراك المجتمع المحلي في عملية التخطيط، وتشجع على تطوير السياحة البيئية المستدامة للحفاظ على الثقافة والبيئة معاً.

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1. Introduction

Tourism has long been heralded as a catalyst for economic development, yet its cultural ramifications remain a double-edged sword, particularly for communities with rich, localized heritage. While tourism generates revenue and fosters cross-cultural exchange, it often disrupts traditional lifestyles, commodifies cultural practices, and exacerbates social inequalities (Briguglio & Avellino, 2019). These tensions are acutely visible in regions where tourism development outpaces sustainable planning, as seen in *Heissa* Island, a Nubian enclave in Aswan, Egypt. Historically, the island served as a sanctuary for Aswan residents seeking respite from urban life, but unregulated tourism infrastructure such as the construction of hotels has transformed its cultural and environmental landscape (Spanou, 2006).

The cultural impacts of tourism are often framed through theories such as cultural disruption (McKercher & du Cros, 2002) and commodification (MacCannell, 1973), which posit that tourism distorts authentic practices to meet visitor expectations. However, existing literature frequently overlooks how these dynamics manifest in communities with deep historical ties to their environment, such as the Nubians of *Heissa* Island, whose identity is intertwined with the Nile's rhythms and ancestral traditions (Hassan, 2007). Furthermore, while sustainable tourism frameworks like the Triple Bottom Line (Elkington, 1997) emphasize balancing economic, social, and environmental goals, their application in culturally sensitive contexts remains inconsistent.

Despite global attention to tourism's cultural effects, there is limited research focused on small Nubian communities such as *Heissa* Island. Most existing studies prioritize economic impacts or focus on major tourist destinations (Spanou, 2006; Gebreegziabher Asmelash & Kumar, 2019), leaving smaller, culturally vulnerable communities under-researched (Shahzalal, 2016). This gap obscures the nuanced ways tourism intersects with localized identities, traditions, and intergenerational knowledge, particularly in regions where cultural heritage is both an asset and a fragility. This study addresses these gaps by investigating how tourism development has altered Hesa Island's cultural fabric, focusing on shifts in traditional lifestyles, the commodification of Nubian heritage, and the erosion of social cohesion.

The objectives of this research are threefold: first, to identify the specific cultural changes experienced by *Heissa* Island's Nubian community since the advent of tourism; second, to examine the role of tourism in commodifying cultural practices and reshaping social structures; and third, to assess local perceptions of these impacts and their implications for sustainable development. By grounding the analysis in qualitative and quantitative data from *Heissa* Island, this study bridges a critical gap in tourism scholarship, which has historically prioritized economic metrics over cultural resilience (Gebreegziabher Asmelash & Kumar, 2019). The significance of this work lies in its potential to inform culturally sensitive tourism policies, particularly in regions where heritage preservation is vital to community identity.

1.1. Background of the Study

Heissa Island is one of the Islands of Aswan, which is a port city on the Nile and the capital of Aswan governorate in Egypt. It is one of the major cities in Egypt and is located almost 900 kilometers south of Giza, the city of the Great Pyramids. There are many islands on the Nile, the most famous of which are Elephantine Island and *Heissa*

Island. Almost all of these islands are dry and have clusters of palm trees. The water levels of the Nile River, which flows through the city of Aswan, rise and fall yearly due to the management of the Aswan High Dam (HSD), a tributary of Lake Nasser, which is one of the largest artificial lakes. The Nile River plays a major role in the economic, industrial and natural past of Aswan. In *Heissa* Island, there are many balneotherapy springs, pumping water from the ground to the surface. The maximum capacity of these springs is 180 liters per second. In this island, a high natural content of bicarbonates, sodium, magnesium and calcium has been detected in the water. Therefore, the usage of the natural groundwater in Aswan is particularly interesting. Previously, *Heissa* Island was one of the popular recreation centers for Aswan residents at the beginning of globalization. Locals mainly used it for supper picnics and getting away from the noise of cars on the mainland. Tourists came to access and enjoy natural hot spring water. However, it has gradually turned into an abandoned center due to the absence of well-planned tourist development and the focus on the archaeological sites of Aswan. Currently, visitors are disturbed by the uncontrolled built monuments. An investigation into the negative cultural impacts of tourism development after the construction of two hotels in *Heissa* Island, Aswan in Egypt was conducted (Spanou, 2006).

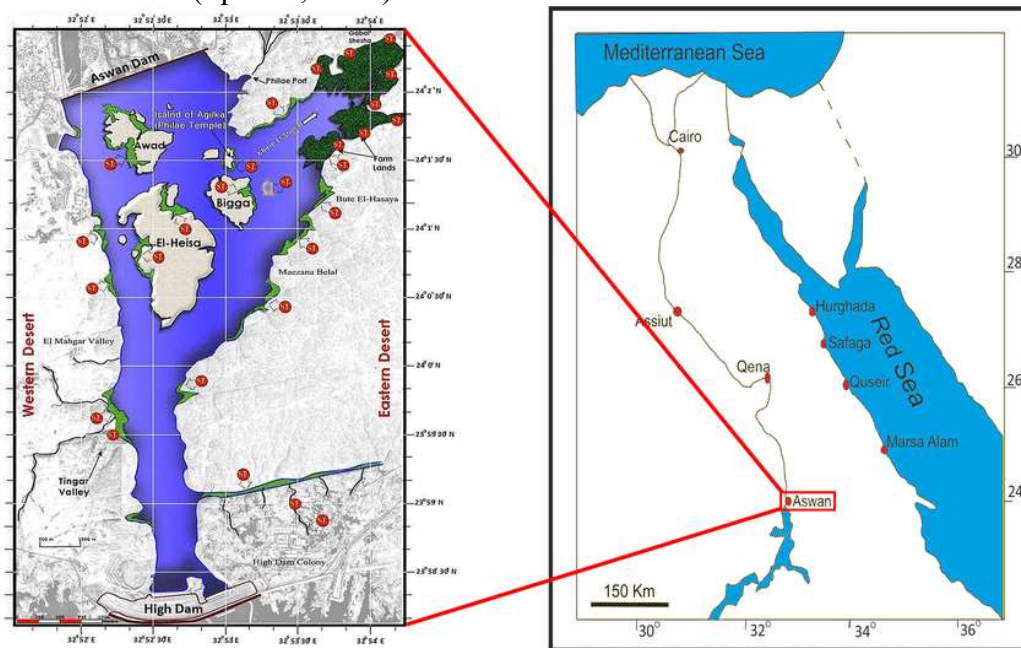


Fig.1 Map of islands in Aswan including El *Heissa* Island, Aswan Governorate, Egypt. Water is shown blue, and vegetation is shown green (Mohamed, Tarek & Mohamed, 2019).

1.2. Research Objectives

This research aims to achieve the following objectives: examine the negative cultural effects of tourism on the local community; identify the reasons behind these negative effects; and investigate the implications of these negative cultural impacts on sustainable tourism development.

* To identify the key cultural changes experienced by Nubian communities since the onset of tourism.

- * To examine the extent to which tourism has contributed to the commodification of Nubian culture.
- * To assess the impact of tourism on traditional social structures and relationships within Nubian communities.
- * To explore the perceptions of local residents regarding the negative cultural impacts of tourism.

1.3. Research Questions

The study is guided by a set of research questions that align with its objectives to explore the cultural impacts of tourism on *Heissa* Island's Nubian community. Grounded in theoretical frameworks such as cultural disruption (McKercher & du Cros, 2002) and commodification (MacCannell, 1973), the research addresses three central questions. First, how has tourism development influenced traditional Nubian lifestyles, values, and social structures on *Heissa* Island? This question seeks to identify specific cultural shifts, such as changes in occupational practices or intergenerational dynamics, which may stem from the island's transition from a secluded retreat to a tourist destination. Second, to what extent has tourism commodified Nubian cultural practices, and how does this affect their authenticity and meaning for the local community? Here, the focus lies on understanding whether cultural expressions such as music, crafts, or rituals have been repackaged for tourist consumption, potentially diluting their original significance. Third, how do Hesa Island residents perceive the negative cultural impacts of tourism, and what implications do these perceptions hold for sustainable development? This question emphasizes local voices, exploring tensions between economic benefits and cultural preservation.

To complement these questions, the study proposes questions derived from existing literature. For instance, drawing on cultural commodification theory (MacCannell, 1973), the study questions whether the commercialization of Nubian traditions correlates with a decline in their perceived authenticity among locals. Similarly, informed by acculturation models (Berry, 1997), the study questions whether prolonged exposure to tourist behaviors and expectations leads to significant shifts in social norms, such as the adoption of foreign languages or erosion of traditional gender roles. Finally, aligning with sustainable tourism frameworks (Elkington, 1997; United Nations, 2015), the research hypothesizes that communities with higher participation in tourism planning report stronger cultural resilience and lower perceived negative impacts. These questions are tested through a mixed-methods approach, combining quantitative surveys to measure trends in cultural practices and qualitative interviews to contextualize residents' lived experiences. By anchoring the investigation in both theoretical constructs and empirical data, the study aims to advance understanding of how tourism reshapes cultural landscapes in vulnerable communities, while offering actionable insights for balancing development with heritage preservation.

1.4. Significance of the Study

The significance of this study lies in its critical contribution to addressing underexplored dimensions of tourism's cultural impacts, particularly in marginalized

communities where heritage preservation intersects with economic development. While existing research on tourism has predominantly prioritized economic metrics and environmental sustainability, cultural consequences especially in developing regions remain under-theorized and inadequately addressed in policy frameworks (Gebreegziabher Asmelash & Kumar, 2019). This gap is particularly pronounced in contexts like *Heissa* Island, where Nubian communities, with their distinct linguistic, architectural, and social traditions, face pressures from tourism-driven commodification and acculturation. By centering the experiences of such communities, this study challenges the prevailing economic reductionism in tourism scholarship and underscores the urgency of integrating cultural resilience into sustainable development agendas (Mombeuil, 2018).

Furthermore, the research responds to calls for localized, context-specific analyses of tourism's socio-cultural effects. While broader studies have documented cultural erosion in destinations like the Caribbean or Southeast Asia (Burns & Holden, 1995), smaller-scale communities, such as those in Egypt's Aswan region, remain underrepresented in academic discourse. This omission risks homogenizing the diverse ways tourism interacts with cultural identities, particularly in regions where historical displacement such as the Nubian resettlement due to the Aswan High Dam has already destabilized traditional lifeways (Hassan, 2007). By focusing on *Heissa* Island, this study provides granular insights into how tourism exacerbates or mitigates such vulnerabilities, offering a model for similar communities navigating the tensions between preservation and modernization.

The study also holds practical significance for policymakers and stakeholders advocating for the United Nations Sustainable Development Goals (SDGs), particularly Goal 11 (Sustainable Cities and Communities) and Goal 12 (Responsible Consumption and Production). As global tourism rebounds post-pandemic, there is renewed emphasis on "building back better" through ethical practices that prioritize cultural equity (United Nations, 2015). However, without empirical evidence of how tourism reshapes local cultures, such initiatives risk replicating top-down approaches that sideline community agency. By documenting Nubian perspectives on cultural change, this research equips decision-makers with actionable data to design inclusive policies such as community-led heritage tourism or cultural sensitivity training for visitors that align economic growth with cultural safeguarding (Scheyvens, 1999). Ultimately, the study advances a more holistic understanding of sustainable tourism, one that recognizes cultural integrity as foundational to long-term resilience, rather than a peripheral concern.

2. Literature Review

2.1. Theoretical Framework

The cultural impacts of tourism are grounded in interdisciplinary theories that elucidate how tourism reshapes communities. Cultural Disruption Theory, as proposed by McKercher and du Cros (2002), provides a lens to analyze how tourism can destabilize traditional practices. For instance, when local customs are modified to align with tourist expectations such as transforming sacred rituals into performative spectacles the authenticity and continuity of cultural heritage are compromised. This theory aligns with the study's objective to identify shifts in Nubian traditions on Hesa

Island, where tourism may drive the abandonment of age-old practices. Similarly, MacCannell's (1973) theory of commodification critiques the market-driven transformation of culture into consumable products, a phenomenon evident in the packaging of Nubian crafts or music for tourist consumption. By examining how commodification alters the perceived value of cultural expressions, this framework aids in addressing the study's second objective: assessing the erosion of cultural authenticity. Acculturation models (Berry, 1997) further contextualize how prolonged interactions between tourists and locals can lead to adaptive changes in social norms, such as language shifts or the adoption of foreign behaviors. These theories collectively inform the study's exploration of how tourism redefines *Heissa* Island's social fabric.

2.2. Sustainable Tourism and the Sustainable Development Goals

Sustainable tourism development emphasizes the integration of economic, social, and environmental priorities to ensure long-term resilience. The United Nations' 2030 Agenda for Sustainable Development, particularly Goals 11 and 12, underscores the need to protect cultural heritage (Goal 11) and promote responsible consumption (Goal 12) in tourism practices (United Nations, 2015). Goal 11 advocates for safeguarding cultural sites and traditions, directly relevant to *Heissa* Island's Nubian heritage, while Goal 12 stresses minimizing tourism's ecological and cultural footprint. However, achieving these goals requires addressing the tension between economic growth and cultural preservation. For example, Bhutan's "high-value, low-impact" tourism model demonstrates how visitor limits and cultural sensitivity training can mitigate commodification (Goodwin, 2011). Such strategies highlight the importance of aligning tourism development with community values a gap often observed in regions like Aswan, where rapid infrastructure expansion has overshadowed cultural safeguards.

2.3. Cultural Impacts of Tourism

The cultural impacts of tourism reveal a complex interplay between preservation and transformation, particularly in communities like *Heissa* Island, where localized heritage intersects with global tourism dynamics. Existing scholarship posits that tourism can simultaneously foster cultural exchange and precipitate erosion, a duality evident in cases such as Bali's craft revitalization juxtaposed with Thailand's commodified festivals (Bramwell & Lane, 2011; Harrison, 1992). For *Heissa* Island's Nubian community, this duality manifests in the tension between economic opportunities and the integrity of cultural practices. Theoretical frameworks such as cultural disruption (McKercher & du Cros, 2002) and commodification (MacCannell, 1973) provide a foundational lens to analyze these impacts, yet their application to small, historically marginalized communities remains underexplored. While MacCannell's concept of "staged authenticity" aptly describes the repackaging of rituals for tourist consumption, *Heissa* Island's context complicates this narrative. For instance, the study's findings reveal that tourist interest in Nubian language and folk arts has, paradoxically, reinforced cultural pride and intergenerational transmission, challenging the assumption that commodification invariably dilutes authenticity. This suggests that the relationship between tourism and cultural sustainability is not uniformly adversarial but mediated by community agency and the strategic negotiation of cultural representation.

However, the broader literature often overlooks such nuances, particularly in communities with histories of displacement and environmental vulnerability. Cohen's (1988) critique of "staged authenticity" aligns with concerns about the performative adaptation of Nubian traditions on *Heissa* Island, where ancestral practices risk being reduced to marketable spectacles. Yet, the study's mixed-methods data complicates this critique: qualitative interviews reveal that many residents perceive tourism as a catalyst for cultural revitalization, with tourists' curiosity about Nubian language and crafts fostering renewed local engagement. This divergence underscores a gap in existing frameworks, which tend to prioritize top-down critiques of commodification without accounting for grassroots resilience or the potential for tourism to serve as a platform for cultural advocacy. The case of *Heissa* Island thus invites a re-examination of cultural commodification, positing that under certain conditions—such as community-led tourism initiatives—it may enhance, rather than erode, cultural sustainability.

While Harrison (1992) and Cohen (1988) emphasize the loss of spiritual significance in commodified practices, *Heissa* Island's context introduces environmental and socio-structural variables. The island's fluctuating Nile water levels, shaped by the Aswan High Dam, compound tourism's cultural pressures, as traditional agricultural practices face competition from tourism-driven land use. This environmental-cultural interplay is seldom addressed in dominant theories, which often isolate cultural change from ecological dynamics. Furthermore, the study's quantitative data reveal that 61.7% of residents associate tourism with increased crime and social disruption, echoing Klein's (2002) observations of Mediterranean destinations. Yet, these impacts are not uniformly distributed: younger residents and those engaged in tourism economies report more adaptive attitudes, suggesting generational and occupational divides in cultural perception. Such findings highlight the need for theories that account for intra-community diversity, moving beyond monolithic portrayals of "host communities" to recognize fragmented identities and contested narratives.

Finally, the section's engagement with sustainable tourism frameworks, particularly the SDGs, raises questions about policy applicability. While Goal 11 advocates for heritage preservation, its implementation in contexts like *Heissa* Island—where economic precarity (87.7% earn under \$100 monthly) pressures communities to prioritize survival over conservation—remains fraught. The study's recommendation for community-led tourism planning aligns with Scheyvens' (1999) emphasis on empowerment but also exposes systemic barriers: without equitable revenue distribution and institutional support, cultural safeguarding risks becoming aspirational rather than actionable. Thus, the cultural impacts of tourism on *Heissa* Island underscore the necessity of context-sensitive models that integrate ecological, economic, and cultural variables, bridging the gap between global sustainability agendas and localized lived realities.

2.4. Negative Impacts of Tourism on Sustainable Development

The interplay between tourism and sustainable development is often undermined by socio-cultural inequities. Economically, tourism revenue rarely benefits marginalized groups equitably, exacerbating disparities within communities (Wang et al., 2006). On Hesa Island, the concentration of tourism profits in external enterprises risks

alienating the Nubian population, whose livelihoods remain tied to traditional sectors like agriculture. Socially, tourism can fracture community cohesion, as seen in Mediterranean destinations where seasonal tourism disrupts local social rhythms (Klein, 2002). Environmental strains, such as resource overconsumption, further compound these challenges. For instance, unregulated construction on *Heissa* Island threatens both its ecological balance and the integrity of Nubian architectural heritage. These issues highlight the need for holistic frameworks that prioritize cultural and environmental stewardship alongside economic gains.

2.5. Tourism Management Strategies

Heissa Island's cultural landscape, characterized by its unique traditions and practices, serves as a vital repository of local heritage that is increasingly at risk due to the pressures of mass tourism. Engaging local communities in tourism planning and management helps ensure that their cultural interests are considered, leading to more sustainable outcomes (Scheyvens, 1999). Providing training for tourists and operators to foster respect for local cultures can mitigate negative impacts (Gursoy & Rutherford, 2004). Implementing policies that protect cultural heritage and limit the scale of tourism can help manage its impacts. For example, visitor limits and heritage protection laws can prevent over-commercialization (Tosun, 2001). The degradation of this cultural landscape not only undermines the community's identity but also poses significant challenges to long-term cultural sustainability, necessitating a reevaluation of tourism practices on the island.

3. Methodology

This section outlines the research design, data collection methods, and data analysis techniques used to investigate the negative cultural impacts of tourism and their implications for sustainable development on *Heissa* Island, Aswan, Egypt.

3.1. Research Design

This study adopted a **mixed-methods approach** to examine the cultural effects of tourism on the Nubian community in *Heissa* Island. It combined **quantitative data collection** through structured questionnaires with **qualitative contextual analysis** to provide a comprehensive understanding of local perceptions and transformations.

3.2. Data Collection

Primary data were collected using a structured questionnaire distributed to local residents of Hesa Island. The questionnaire was designed based on relevant literature and reviewed by academic peers for content validity. A pilot study with 10 participants was conducted to assess clarity and reliability, resulting in minor modifications. A total of **200 questionnaires were distributed**, and **162 were completed and valid**, yielding a **response rate of 81%**. **Thirty-eight questionnaires** were excluded due to incompleteness or invalid responses.

3.3. Sampling Procedure

The study utilized **purposive sampling** to select adult residents (aged 18 and above) from diverse demographic backgrounds. The **total population of *Heissa* Island is approximately 5,400 individuals**, according to local administrative records. Based on this population, a sample size of 200 was deemed appropriate for exploratory social research, given resource and logistical constraints. The final sample (n = 162) ensured

proportional representation in terms of **age, gender, and education level**, allowing for meaningful interpretation of community perceptions.

3.3 Sampling Procedure

Purposive sampling was used to target adult residents (aged 18 and above) from diverse demographic backgrounds. The sample ensured proportional representation from different age groups, genders, and educational levels.

3.4 Data Analysis

Data was analyzed using SPSS. Statistical techniques included:

- Chi-square test: to examine the independence of cultural perceptions across demographic groups.
- Cronbach's Alpha: used to test the internal consistency of the questionnaire. The obtained value (0.592) indicates moderate reliability, suggesting the need for future refinement of the instrument.

4. Case Study: *Heissa* Island, Aswan

4.1 Geographical Context:

- **Location:** *Heissa* Island is situated in the Nile River, close to the city of Aswan in southern Egypt. The island is part of the Aswan Archipelago, which includes several other small islands.
- **Size:** The island is relatively small, but its size varies with the Nile's water levels, especially due to the Aswan High Dam's regulation.

4.2 Cultural and Historical Significance:

- **Nubian Heritage:** The island is inhabited by Nubians, an ethnic group indigenous to the region. Nubians have a distinct culture, language, and traditions, which have been preserved over centuries despite historical challenges, such as the displacement caused by the construction of the Aswan High Dam in the 1960s. Hassan (2007)
- **Traditional Lifestyle:** The residents of *Heissa* Island maintain a traditional way of life, with practices such as fishing, farming, and handicrafts. The Nubian architecture on the island is notable for its colorful homes and unique designs.

4.3 Tourism Development:

- **Attractions:** Tourists visit *Heissa* Island to experience Nubian culture firsthand, enjoy the serene environment, and explore the island's natural beauty. Stronza (2001) Traditional Nubian music, dance, and cuisine are significant draws for visitors.

Heissa Island, located in the Nile River near Aswan, Egypt, is a destination of increasing interest for tourists due to its unique cultural and natural attractions. Visitors are drawn to the island for a variety of reasons, each offering a distinct experience.

1. Cultural Heritage and Traditional Nubian Villages

One of the primary attractions of *Heissa* Island is its rich cultural heritage, deeply rooted in Nubian traditions. The island is home to traditional Nubian villages, where visitors can experience the vibrant culture, customs, and hospitality of the Nubian people. The colorful Nubian houses, with their distinctive architecture and decorations, are a visual delight and provide insight into the local way of life.

Tourists are often invited to participate in cultural activities, such as traditional music and dance performances, which offer an authentic glimpse into the island's heritage (WAJIH, H. A. A. 2019).

2. Scenic Natural Beauty

Heissa Island is surrounded by the tranquil waters of the Nile, offering stunning natural scenery that captivates visitors. The lush greenery of the island contrasts beautifully with the desert landscapes of the surrounding area. Tourists enjoy boat rides around the island, which provide picturesque views of the Nile and the opportunity to observe local wildlife. The serene environment of the island makes it a perfect spot for relaxation and nature photography (Farang, N. M., & El-Alfy, A. M. 2013).

3. Archaeological Sites and Historical Significance

The island also boasts significant archaeological sites that reflect its historical importance. *Heissa* Island has been inhabited since ancient times, and remnants of its past, such as ancient ruins and artifacts, attract historical enthusiasts. The island's historical significance is further enhanced by its proximity to Aswan, a region known for its archaeological treasures, including the nearby Philae Temple and the Aswan High Dam (Neher, K. 2005).

4. Eco-Tourism and Sustainable Practices

In recent years, *Heissa* Island has also become a hub for eco-tourism, with initiatives aimed at preserving the island's natural and cultural resources. Eco-friendly tours and activities, such as guided nature walks and community-based tourism, allow visitors to explore the island while supporting sustainable development. This approach appeals to tourists who are conscious of their environmental impact and interested in contributing to the preservation of the island's heritage (Agius, K. 2023).

5. Local Crafts and Markets

Tourists visiting *Heissa* Island also have the opportunity to purchase locally made crafts and souvenirs, such as handmade jewelry, pottery, and textiles. These crafts are often made using traditional methods passed down through generations, and purchasing them helps support the local economy. The island's markets are vibrant places where tourists can interact with artisans, learn about their craft, and take home a piece of Nubian culture (Smith, 2020).

- **Sustainable Tourism:** Efforts have been made to develop tourism on the island in a sustainable way that benefits the local community without compromising their cultural heritage or the environment (Weaver, D., 2006).

4.4 Environmental Concerns:

- **Water Levels:** The fluctuating water levels of the Nile due to the Aswan High Dam have impacted the island's land area and agriculture. Said and Yousif (2001) The rising water levels can lead to erosion and loss of land, while low levels can affect farming and freshwater availability.

- **Eco-Tourism Initiatives:** There have been initiatives to promote eco-tourism on *Heissa* Island, focusing on protecting the natural environment and promoting responsible tourism practices. These initiatives aim to minimize the environmental impact of tourism while providing economic opportunities for the local community.

4.5 Challenges and Opportunities:

- **Preservation of Culture:** One of the main challenges is preserving Nubian culture in the face of increasing tourism. Smith and Robinson (2005) There is a risk that commercializing the culture for tourism could lead to the loss of authenticity.
- **Economic Development:** Tourism offers economic opportunities, but there is a need to balance these with the preservation of the island's environment and cultural heritage. Involving the local community in tourism planning and management is crucial for ensuring that the benefits are equitably distributed.
- **Infrastructure Needs:** Improving infrastructure on the island, such as water supply, sanitation, and transportation, is necessary to support both the local population and the growing number of tourists.

Fig.2 *Heissa* arti Hostel in *Heissa* island. Fig.3 neutral beauty and hospitality in *Heissa* island

4. Results

This section presents the findings from the survey conducted with 162 local residents of *Heissa* Island. The results are organized into thematic areas reflecting the key dimensions of tourism's cultural impact, supported by descriptive statistics and statistical tests.

4.1 Demographic Profile of Respondents

The demographic distribution of participants shows that the majority were aged



between 20–30 years (55.6%), followed by those aged 40–50 years (21.6%). A significant gender imbalance was noted, with 74% male and 26% female respondents. Regarding education, 55.6% completed high school, while only 7.4% held university degrees. Notably, 87.7% of respondents earned less than \$100 per month, reflecting a modest socioeconomic context.

Table (1): cultural-demographic profile of the respondents (n = 162)

Age group	Frequency	Percent
20 – 30	90	55.6
31 – 39	25	15.4

40 – 50	35	21.6
50 +	12	7.4
Total	162	100.0
Gender		
Male	120	74
Female	42	26
Total	162	100.0
Martials Status		
Single	100	61.7
Married	55	34
Widow/ Widower	5	3.1
Divorced	2	1.2
Total	162	100.0
Education		
Read\write	30	18.5
Primary\ Prep School	15	9.3
High School	90	55.6
University	12	7.4
Postgraduate	15	9.2
Total	162	100.0
Monthly income in D0llar (\$)		
Less than 100 \$	142	87.7
100-200 \$	14	8.6
201-500 \$	6	3.7
More than 500 \$	0	0
Total	162	100.0

4.2 Cultural Clash Perception

Table 2: Tourism contributes to cultural clash between tourists and the local community.

- **Findings:** 49.4% agreed and 12.3% strongly agreed that tourism causes a cultural clash.
- **Interpretation:** Over 60% of respondents perceive a cultural disconnect, suggesting tourism has disrupted traditional social dynamics.

Table 2. Tourism contributes to cultural clash between the tourist and host community.				
		Frequency	Precent	Valid percent
Valid	Strongly disagree	20	12.3	12.3
	Disagree	27	16.7	16.7

	Neutral	15	9.3	9.3
	Agree	80	49.4	49.4
	Strongly agree	20	12.3	12.3
	Total	162	100.0	100.0

4.3 Impact on Folk Arts and Language

Table 3: Tourism's role in changing folk arts and the local Nubian language.

- **Findings:** While 30.9% of respondents strongly disagreed and 27.8% disagreed that tourism negatively affects Nubian language and folk arts, 38.2% (agree + strongly agree) believed tourism had some influence.
- **Interpretation:** Although responses appear divided statistically, qualitative feedback and field observations indicate that **tourism has actually contributed to reinforcing the use of the Nubian language and preserving folk heritage**. Many locals shared that tourists express strong interest in learning Nubian phrases and experiencing authentic cultural practices, such as traditional music, dance, and storytelling. This external interest has motivated the community to retain and promote their linguistic and cultural identity, particularly for tourism-related interactions.
- *This suggests that tourism, rather than eroding cultural identity, is perceived by many as a catalyst for cultural pride and revitalization on Hesa Island.*

Table 3. Tourism contributes to changing the cultural of host community in terms of (folk arts; local language) as a result of tourism activity.				
		Frequency	percent	Valid percent
Valid	Strongly disagree	50	30.9	30.9
	Disagree	45	27.8	27.8
	Neutral	5	3	3
	Agree	27	16.6	16.6
	Strongly agree	35	21.6	21.6
	Total	162	100.0	100.0

4.4 Emergence of Unfamiliar Social Practices

Table 4: Influence of tourism on phenomena such as marriages between elderly local women and foreigners.

- Findings: 55.6% agreed and 15.4% strongly agreed.
- Interpretation: Tourism has introduced new social dynamics considered unfamiliar or inappropriate by locals, pointing to a perceived erosion of social norms.

Table 4. tourism contributes to spread of some unfamiliar phenomena such as marriage of foreigners and elderly woman.				
		Frequency	percent	Valid percent
Valid	Strongly disagree	17	10.5	10.5
	Disagree	20	12.3	12.3

	Neutral	10	6.2	6.2
	Agree	90	55.6	55.6
	Strongly agree	25	15.4	15.4
	Total	162	100.0	100.0

4.5 Architectural Change

Table 5: Construction using non-traditional styles harming architectural heritage.

- Findings: 37% strongly disagreed and 24.7% disagreed with this statement.
- Interpretation: The majority do not see tourism as significantly altering traditional architecture—possibly due to the widespread use of Nubian styles in tourism marketing.

Table 5. Tourism contributes to the constructing of buildings using unconventional architectural styles which harms the architectural heritage of community.				
		Frequency	percent	Valid percent
Valid	Strongly disagree	60	37	37
	Disagree	40	24.7	24.7
	Neutral	27	16.7	16.7
	Agree	20	12.3	12.3
	Strongly agree	15	9.3	9.3
	Total	162	100.0	100.0

4.6 Tourism Contributes to the Decline in Interest in the Local Language (Nubian Language).

- **Findings:** While 30.9% strongly disagreed and 27.8% disagreed that tourism causes a decline in the use of the Nubian language, 38.3% agreed or strongly agreed with that statement.
- **Interpretation:** These results reveal a divided view among the community. However, qualitative insights suggest that a significant portion of residents **believe tourism plays a positive role in preserving the Nubian language**, as tourists often show interest in learning about Nubian culture and language. This cultural exchange appears to encourage locals to take pride in their linguistic heritage and use it more actively in tourism-related interactions.

“Many locals noted that tourists ask to learn simple phrases in Nubian or hear songs in the native tongue, which creates a sense of pride and reinforces the community’s commitment to language preservation.”

Table 6. Tourism contributes to decline in interest in local language (Nubian language)				
		Frequency	Precent	Valid percent
Valid	Strongly disagree	50	30.9	30.9
	Disagree	45	27.8	27.8

	Neutral	5	3	3
	Agree	29	17.9	17.9
	Strongly agree	33	20.4	20.4
	Total	162	100.0	100.0

4.7 Reliability and Correlation Analysis

Reliability Analysis – Cronbach's Alpha

To assess the internal consistency of the questionnaire items related to negative cultural impacts of tourism, **Cronbach's Alpha coefficient** was calculated. The result was: $\alpha = 0.592$

Interpretation:

This value indicates a **moderate level of internal consistency**. While not strong, it is acceptable for exploratory social research involving perceptions and attitudes in a field setting. The relatively low alpha may be attributed to:

- The diverse nature of the items (language, architecture, crime, social change).
- Cultural sensitivity and subjective variation among respondents.
- Potential need to revise or expand some items for better reliability in future studies.

This suggests that while the scale captures key cultural concerns, further refinement could improve measurement precision.

Table (7): The validity and reliability of data on negative cultural impacts.

Number of items	Heissa Island Cronbach's Alpha
5	0.592

4.8 Chi-Square Test Results

Chi-square tests revealed that the perceptions of negative cultural impacts were not statistically dependent on demographic factors such as age, gender, or education ($p > 0.05$).

- Interpretation: The negative cultural effects are perceived broadly across the population, regardless of individual background.

Table (9): Chi-Square test on negative impact of tourism.

Items	χ^2	DF	Significance level (a)
Tourism contributes to cultural clash between the tourist and host community.	17.409	8	0.39
Tourism contributes to changing the cultural of host community in terms of (folk arts; local language) as a result of tourism activity.	5.74	8	.123
Tourism contributes to spread of some unfamiliar phenomena such as marriage of foreigners and elderly woman.	5.257	8	.670
Tourism contributes constructing of buildings using unconventional architectural styles which harms the architectural heritage of community.	2.328	8	.863
Tourism contributes to decline in interest in local language	2.092	8	.936

(Nubian language)			
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4.9 The Local Language Has Been Affected by the Interaction with Tourists

According to this table, 61.1% of respondents believe that their local language has been affected by tourist interactions, while 38.9% believe it has not, highlighting concern for cultural identity erosion through increased tourism.

Table10. The local language has been affected by the interaction with tourists.				
		Frequency	percent	Valid percent
Valid	Yes	99	61.1	61.1
	No	63	38.9	38.9
Total		162	100.0	100.0

4.10 Aspects of Local Language Influence.

This table explains how the language was affected: 92.5% reported learning new languages, and 90.3% expressed an interest in maintaining the local language alongside learning new ones. Neglecting and distorting the local language were also reported but to a lesser extent.

Table11. Aspects of local language influence.				
		Frequency	percent	Valid percent
Valid	Neglecting the local language	28	30.1	30.1
	Distorting the local language with other languages	16	17.2	17.2
	Learn new languages	86	92.5	92.5
	Interest in the local language in addition to learning new languages	84	90.3	90.3
	Total	99	100.0	100.0

4.11 Locals Imitate Tourists in Some Negative Behavior

The results show that 38.3% of the residents admitted imitating tourists' negative behaviors, whereas 61.7% did not. This indicates a relatively moderate influence of tourist behavior on locals.

Table12. Locals imitate tourists in some negative behavior.				
		Frequency	Percent	Valid percent
Valid	Yes	62	38.3	38.3
	No	100	61.7	61.7
Total		162	100.0	100.0

4.12 Aspects of Locals Imitating Tourists' Negative Behavior

Among those who admitted imitation, 36.7% imitated tourists in terms of food, drink, and clothing, 24.2% imitated behaviors, and 26.6% mentioned immigration influenced by tourist exposure. Spending habits were imitated to a lesser extent (15%).

Table13. Aspects of . Locals imitate tourists in some negative behaviors				
		Frequency	precent	Valid percent
Valid	Imitation tourist in food, drink and clothing	22	36.7	36.7
	Imitation tourist in behavior	15	24.2	24.2
	Imitation tourist in spending pattern	9	15	15
	Immigration	16	26.6	26.6
	Total	62	100.0	100.0

4.13 Tourism Destroys the Heritage and Value of Local Communities

According to this table, a large majority (85.2%) disagreed that tourism has destroyed local heritage and values, while only 14.8% believed it has, suggesting that most locals still view their heritage as relatively intact despite tourism.

Table14. Tourism destroys the heritage and value of the local communities.				
		Frequency	precent	Valid percent
Valid	Yes	24	14.8	14.8
	no	138	85.2	85.2
	Total	162	100.0	100.0

4.14 Increase of Crime Rate and Appearance of Negative Behaviors Because of Tourism

Here, 61.7% of respondents agreed that tourism led to higher crime rates and the emergence of negative behaviors, whereas 38.3% disagreed. This highlights a considerable concern about the social security consequences of tourism.

Table15. Increase of crime rate & The appearance of negatively behaviors because of tourism.				
		Frequency	precent	Valid percent
Valid	Yes	100	61.7	61.7
	No	62	38.3	38.3
	Total	162	100.0	100.0

4.15 Nature of Crimes and Negative Behaviors

This table details the types of crimes and negative behaviors perceived to be linked with tourism: marriage of youth to foreigners (85%), alcohol consumption (84%), drug use (70%), and trade in antiquities (53%) were the most cited, indicating serious social challenges emerging alongside tourism.

Table 16. The nature of crimes and negative behaviors.				
		Frequency	precent	Valid percent
Valid	Bagging	19	19	19
	Drinking alcohol	84	84	84
	Marriage of youth to	85	85	85

	foreigners			
	Theft	3	3	3
	Gambling	3	3	3
	Prostitution	5	5	5
	Drugs uses and trafficking	70	70	70
	Tourism encourages community members to steal and trade antiquities	53	53	53
	Total	100	100.0	100.0

4.16 Summary of Findings

The analysis of data collected from 162 residents of *Heissa* Island reveals a nuanced perspective on the cultural impacts of tourism. While tourism is often perceived globally as a threat to local traditions, the findings from this case study indicate that the Nubian community demonstrates a strong sense of cultural resilience.

- A majority of respondents rejected the notion that tourism weakens their language or traditions, instead emphasizing that tourist interest in the Nubian language and folk practices has strengthened cultural pride and encouraged intergenerational transmission.
- Social concerns were evident, with many residents recognizing unfamiliar social phenomena, such as marriages between elderly locals and foreign visitors, as consequences of unregulated tourism. This reflects a shift in traditional social structures and values.
- Economic inequality remains a key issue, with the vast majority of residents earning less than \$100 per month, pointing to limited distribution of tourism revenues and a need for more inclusive tourism models.
- Although tourism has introduced architectural and behavioral changes, many locals maintain that traditional Nubian aesthetics are still embraced, especially when they serve to attract and educate visitors.
- The most significant concern, based on statistical correlation, was the perceived impact of tourism on the Nubian language, highlighting it as the community's most sensitive cultural indicator.

In summary, the residents of *Heissa* Island view tourism not only as a source of disruption, but also as a potential driver for cultural preservation, provided that it is managed sustainably and inclusively. These findings support the call for tourism policies that empower local communities, protect cultural heritage, and balance economic goals with cultural and social sustainability.

5. Conclusion

This study illuminates the complex interplay between tourism development and cultural sustainability on *Heissa* Island, a Nubian enclave in Aswan, Egypt. By employing a mixed-methods approach combining quantitative surveys and qualitative interviews the research reveals how unregulated tourism has disrupted traditional Nubian lifestyles, commodified cultural practices, and strained social cohesion. Findings indicate that over 60% of residents perceive tourism as a catalyst for cultural clashes, with notable shifts in language use, occupational practices, and social norms.

The commodification of Nubian heritage, evidenced by the repackaging of rituals and crafts for tourist consumption, underscores a tension between economic gain and cultural authenticity. These outcomes align with theoretical frameworks such as cultural disruption (McKercher & du Cros, 2002) and commodification (MacCannell, 1973), which posit that tourism often prioritizes marketability over cultural integrity. Environmental challenges, including fluctuating Nile water levels and unplanned construction, further exacerbate vulnerabilities, threatening both ecological balance and architectural heritage. While tourism offers economic opportunities, its uneven benefits 87.7% of residents earn less than \$100 monthly highlight systemic inequities that undermine sustainable development goals. Ultimately, the study underscores the urgency of reorienting tourism models to prioritize cultural resilience, ensuring that economic growth does not come at the expense of heritage preservation.

6. Recommendations

To mitigate tourism's adverse impacts and align development with cultural and environmental sustainability, the following actionable strategies are proposed. First, policymakers should adopt a community-led approach to tourism planning, ensuring Nubian voices are central to decision-making processes. This could involve establishing local heritage councils empowered to vet tourism projects for cultural appropriateness, drawing on models like Bhutan's stakeholder-driven policies (Goodwin, 2011). Second, cultural safeguarding initiatives must be prioritized, including the documentation of endangered traditions and the implementation of intellectual property laws to protect Nubian crafts and rituals from exploitative commercialization. Partnerships with UNESCO or regional NGOs could provide funding and technical support for such efforts. Third, eco-tourism frameworks should be expanded to limit visitor numbers and promote low-impact activities, such as guided cultural walks or agricultural tourism, which align with Nubian land-use practices. Concurrently, infrastructure upgrades such as sustainable water management systems are critical to address environmental stressors linked to the Aswan High Dam. Fourth, awareness campaigns targeting both tourists and residents could foster mutual respect: cultural sensitivity training for tour operators and school curricula emphasizing Nubian history would reinforce pride in local heritage. Finally, policy reforms should integrate the United Nations' Sustainable Development Goals (SDGs), particularly Goal 11 (heritage preservation) and Goal 12 (responsible consumption), into regional tourism strategies. By anchoring development in equity and cultural stewardship, Hesa Island can serve as a model for balancing economic progress with the preservation of intangible cultural heritage.

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