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**THESIS FOR THE DEGREE OF MASTER OF
ARCHITECTURE IN ARCHITECTURE
PROGRAM**

Naeem IQBAL

**UNDERSTANDING CULTURAL TOURISM POTENTIAL
OF HUNZA VALLEY IN THE CONTEXT OF CULTURAL
LANDSCAPE IDENTITY**

THESIS ADVISOR
Asst. Prof. Dr. Özgün ARIN

ISTANBUL, 2025

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ÖZET

HUNZA VADİSİ'NİN KÜLTÜREL TURİZM POTANSİYELİNİN KÜLTÜREL PEYZAJ AÇISINDAN İNCELENMESİ

İnsanlar, mekân ve tarih arasındaki derin ilişkileri yansıtmalarına rağmen, çok sayıda kültürel peyzaj, miras söylemlerinde yeterince temsil edilmemektedir. Bu makale, doğal güzellikleri ve tarihi mimarisiyle ünlü Pakistan'ın Hunza bölgesinin yeterince temsil edilmeyen kültürel peyzaj potansiyelini yeniden değerlendirmektedir. Çalışma, yerel katılımı, turizm altyapısını, turist deneyimlerini ve kültürel sürekliliği etkileyen faktörleri analiz etmek için saha araştırmaları, yerinde gözlemler, anket çalışmaları, görüşmeler, coğrafi ve mimari analizler ve istatistiksel analiz aracı olan Sosyal Bilimler İstatistik Paketi'ni (SPSS) kullanan karma yöntemli bir yaklaşım kullanmaktadır. Hunza'nın zengin kültürel ifadelerinin, yerel geleneklerinin ve sosyo-tarihsel kimliğinin bu kısıtlı tanınırlık tarafından nasıl gölgede bırakıldığını vurgulamaktadır. Sonuçlar, Hunza'nın doğal değerine değer verilse de, mimari özgünlüğünün kaybolduğunu ve kültürel turizm potansiyelinin tam olarak kavranmadığını göstermektedir. Araştırma, sürdürülebilir korumayı sağlamak ve Hunza'nın kendine özgü kültürel kimliğinin tanınırlığını artırmak için yerel paydaş katılımının ve mirasa duyarlı turizm planlamasının dahil edilmesinin önemini vurgulamaktadır.

Anahtar Kelimeler: Kültürel Manzara; Kültürel Turizm; Mimari Miras; Kültürel Miras; Toplum Katılımı.

ABSTRACT

UNDERSTANDING CULTURAL TOURISM POTENTIAL OF HUNZA VALLEY IN THE CONTEXT OF CULTURAL LANDSCAPE IDENTITY

Numerous cultural landscapes remain under-represented in heritage discourses, despite reflecting the profound relationships among people, place, and history. This article reassesses the underrepresented cultural landscape potential of Hunza, Pakistan, an area renowned for its scenic beauty and historic architecture. The study employs a mixed-methods approach using field surveys, on-site observations, questionnaire surveys, interviews, geographic and architectural analysis and statistical analysis tool: Statistical Package for Social Sciences (SPSS) to analyze the factors affecting local participation, tourism infrastructure, tourist experiences and cultural continuity. It highlights how Hunza's rich cultural expressions, vernacular customs, and socio-historic identity are overshadowed by this restricted recognition. The results indicate that although Hunza's natural value is admired, its architectural distinctiveness is being lost, and its potential for cultural tourism is not being fully comprehended. The research highlights the significance for incorporating local stakeholder involvement and heritage-sensitive tourism planning to achieve sustainable preservation and enhance recognition of Hunza's distinctive cultural identity.

Keywords: Cultural Landscape; Cultural Tourism; Architectural Heritage; Cultural Heritage; Community Participation.

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CHAPTER 1

INTRODUCTION

Landscapes encompass not just physical terrains but also cultural archives that embody the interactions between humans and their environments over centuries. All over the world, some areas develop into complex stories of adaptation, identity, and tradition — molded by factors such as geography, climate conditions, socio-political history, and community practices.

UNESCO acknowledges these interactions by defining Cultural Landscapes as “combined works of nature and man,” formed through the influence of environmental limitations and socio-cultural forces over time. These landscapes include systems of land division, settlements, architectural styles, and intangible heritage, embodying a blend of human effort and the natural environment (UNESCO, 2024). They are categorized into three types: Clearly Defined, Organically Evolved (further categorized into Relict and Continuing Cultural Landscapes), and lastly Associative Cultural Landscapes.

Cultural Landscapes and Cultural Tourism have both received academic attention in recent decades, but their combined study — especially how one might support the development of the other — remains underexplored. This holds particularly in South Asian contexts, where layered cultural identities and vernacular landscapes are frequently neglected in global heritage narratives (Sinha, 2016).

Hunza Valley, a region in northern Pakistan known for its breathtaking views, heritage architecture, and strong communities, is situated within this South Asian landscape. Sandwiched between the Karakoram ranges, it has historically functioned as a hub for cultural exchange, trade, and transit. Although it possesses a strategic geopolitical location and is rich in socio-cultural aspects, it is not included in formal global recognition frameworks like UNESCO’s World Heritage List.

This research reassesses Hunza using the framework of cultural landscape theory to evaluate its prospects for global recognition. Its goal is to bridge the theoretical gap between cultural landscape and cultural tourism by examining how tourism can serve

not just as an economic asset, but also as a means for cultural preservation and worldwide outreach.

Cultural landscape theory (UNESCO, 2024; Sauer, 1925), heritage authenticity and conservation (Feilden, 2003), tourist life cycle models (Butler, 1980), and community participation models (Arnstein, 1969) are some of the multidisciplinary theoretical frameworks that guide this research. Together, these frameworks facilitate the analysis of Hunza's cultural characteristics, stakeholder relationships, and changing identity in the context of a larger international conversation about cultural heritage and travel strategy.

1.1. AIM OF THE STUDY

The aim of this research is to explore and develop strategies for leveraging cultural tourism to promote the recognition and preservation of Hunza Valley's potential as a cultural landscape. The study addresses current challenges related to tourism management, lack of awareness about local practices and lifestyles shaped by the cultural and natural characteristics and limited community involvement. The research highlights cultural tourism as an instrument to contribute towards Hunza Valley's future global recognition and the preservation of its distinctive cultural identity.

Problem statement

Tourism in Hunza Valley, Gilgit-Baltistan, has largely focused on its natural beauty and monumental architecture. As much as these are essential to its identity, they overshadow its broader cultural and spatial settings, which integrate the region's evolving interaction with nature, lifestyle, and cultural and architectural heritage. This narrow scope limits Hunza's recognition as a potential cultural landscape, despite its rich cultural significance. The research addresses challenges like mismanaged tourism, lack of awareness about cultural landscapes, and limited community involvement. It explores how aspects of Hunza's cultural, architectural and natural environment that are fundamental to its identity can be recognized, analyzed, and incorporated into

sustainable cultural tourism strategies that reinforce local preservation initiatives and establish a foundation for possible international acknowledgement.

It explores how mapping identity factors reflecting its cultural and natural value and classifying landscape features for tourism that can be maintained and utilized, can leverage cultural tourism to promote Hunza Valley's global recognition and cultural preservation.

Research Objectives

1. To investigate the current state of cultural tourism in Hunza, identify its strengths and weaknesses
2. To identify the geographical limitations and opportunities in Hunza that have significantly shaped its cultural landscape, and to measure their effects on aspects such as architectural typology and cultural practices.
3. To analyze the impact of the Karakoram Highway on the flow of tourists to Hunza and measure the specific benefits and challenges it has brought to the region's tourism industry
4. To study how the current and centuries-old architecture of Hunza retains its stability while being in a seismic zone
5. To study the effect and level of engagement of the local community in the development process of Hunza's Cultural Tourism and Architectural Heritage
6. To assess the criteria that Hunza fulfills to be nominated as a cultural landscape site
7. To find out the current Tourism Management practices and the ways they can be improved

Research Questions

1. What potential criteria does Hunza fulfill to be acknowledged as a cultural landscape site, and how do the natural, architectural and economic values contribute to this acknowledgement?
 - What geographical characteristics in Hunza valley appear as opportunities and limitation in shaping its cultural landscape?

- How is Hunza's architecture preserved in the frequent seismic activity?
 - What is the role of the local community in developing the cultural tourism and preserving architectural heritage in Hunza?
2. How can the current tourism management practices be enhanced to promote its cultural landscape through cultural tourism?
- What are the current strengths and weaknesses of cultural tourism in Hunza valley?
 - How has the opening of Karakoram Highway influenced tourist influx, and what benefits or challenges has it created?

Hypotheses

1. The natural, architectural and economic values of Hunza valley together shape its identity and culture, with its recognition and development as a cultural landscape site
2. Hunza's cultural tourism acts as a significant tool to promote and preserve its cultural landscape, along with strategic tourism management practices to reinforce sustainable development and fulfilment of criteria of cultural landscape site.
 - The opening of the Karakoram Highway has significantly influenced tourism growth in Hunza, but without adequate planning, it risks undermining the preservation of its cultural landscape.
 - The current tourism management practices in Hunza are insufficient to sustain cultural tourism, and improved strategies are essential to ensure long-term preservation of the cultural landscape.

1.2. CONTENT OF THE STUDY

Apart from chapter one which is the introductory chapter, chapter two comprises of the fundamental concepts of Cultural Landscape, their selection criteria, Cultural Tourism and Heritage. It further elaborates on the categories of the three detailed concepts.

Chapter three, on the other hand, reveals the interrelationships between the above-mentioned concepts, how they may impact each other, how they can be utilized to

produce the optimum benefits. In short, this chapter further strengthens the concepts and elaborates how they can work simultaneously.

Chapter four presents global examples and their tourism models. It then demonstrates a comparative study between these examples and Hunza Valley.

Chapter five includes general information about Hunza Valley. It provides physical social and architectural approach analysis of the region encompassing topics such as location, history, accessibility, flora fauna, information about the local community, geographical restrictions, architectural typology, their settlement patterns etc.

Chapter six is a follow up to the previous chapter and elaborates on the primary analysis part. It describes and analyzes Natural Value, Cultural and Architectural Value, and Economic Value of the Hunza Valley based on primary research results and interpretations.

Last of all, Chapter seven is a conclusion of the research, answers the research questions and inquires whether the hypothesis happens to be true or not.

1.3. RESEARCH METHODOLOGY

The research investigates Hunza Valley's potential as a cultural landscape using a mixed-methods research approach. It blends qualitative and quantitative methodologies to acquire a comprehensive knowledge of the way Hunza's natural, cultural, architectural and economic characteristics interact with tourism narratives and community values. The mixed-methods approach validates the research findings by incorporating deep contextual perspectives with statistical patterns (Creswell, 2014). The purpose of selecting this particular method is to enrich the interdisciplinary nature of the study including heritage, community values and spatial practices which necessitate numerical as well as contextual analysis.

The theoretical framework of the research is laid by a comprehensive literature study of available scholar works, books, journals, academic theories, official reports and relevant global examples of UNESCO-recognized cultural landscapes and globally-renowned cultural tourism models. This through research assist in directing the flow of

the research, compares and analyzes Hunza Valley's potential to acknowledged examples, inform the selection of research variables, and identify gaps in the current academic discourses, particularly in regard to the under-representation of lesser-known Asian cultural landscapes in the world heritage discussions.

Subsequently, the primary research is embedded in an in-depth case-study of Hunza Valley followed by a comparative analysis with similar global examples, known for their cultural tourism, or acknowledged by UNESCO as cultural landscapes such as Bhutan, Bamiyan Valley in Afghanistan, Cultural Landscapes of Uramanat, Iran, Koutammakou, Togo, and Sukur, Nigeria. These examples are thoughtfully selected on the basis of their similar mountainous topography, vernacular architectural patterns, community engagement in cultural and architectural heritage etc. These examples demonstrate essential perspectives into the features and management strategies resulting in a worldwide identity. The comparative analysis benefits the research by interpreting its unrecognized value and association with recognized global criteria.

To give the research a direction, three value systems including natural, architectural and economic value are analyzed as shown in figure 1.1. Factors such as geographical and climatic distinctiveness, traditional architectural styles, settlement patterns, tourism economy, community awareness, and visitor satisfaction etc. are examined from a variety of angles.

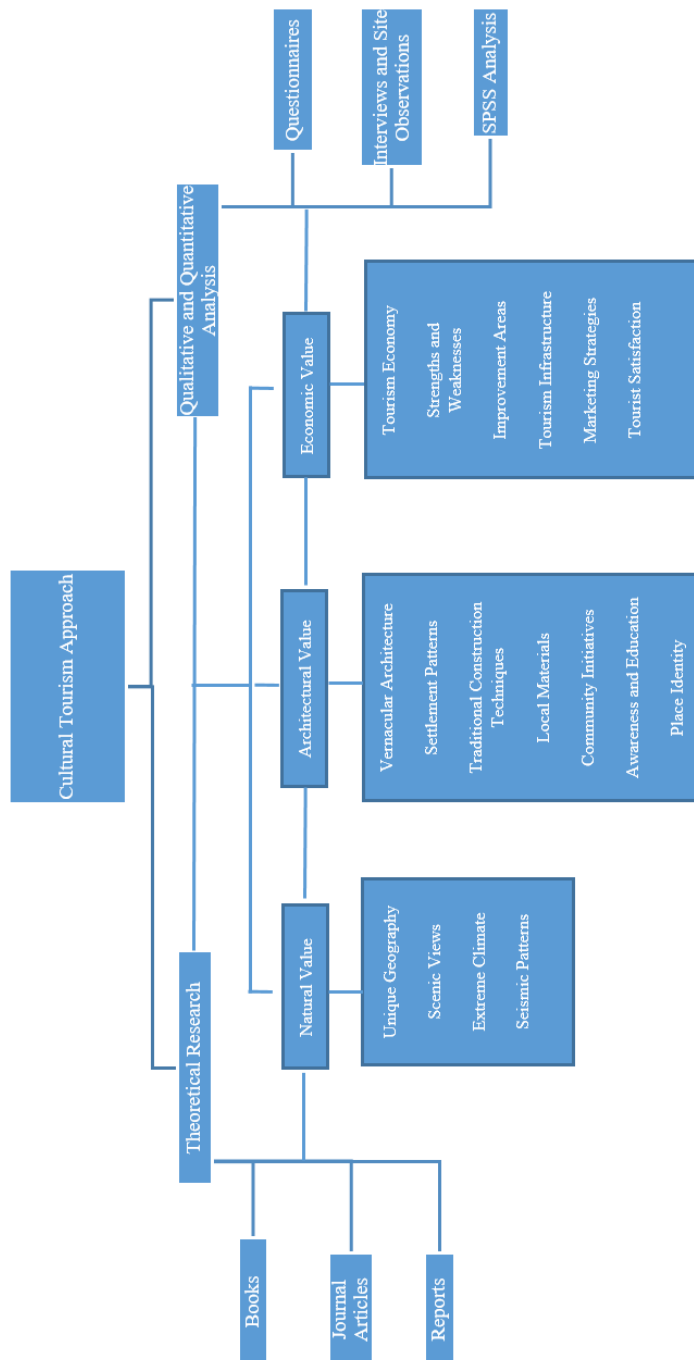


Figure .1.1 Factors used to Evaluate Cultural Landscape Potential of Hunza (Prepared by Author)

To carry out the case-study, fieldwork and data collection, a combination of site visits, structured and semi-structured interviews along with close and open-ended

questions, observations and standardized questionnaire is employed to triangulate the information collected from different stakeholders. Questionnaire and interviews are collected from four experts from the fields of architecture, culture and architectural heritage whose insights help to analyze Hunza's historical significance, architectural identity and tourism potential. Additionally, 40 local residents and 49 national and international tourists are also approached via questionnaire surveys, designed to inquire about Hunza Valley's cultural and architectural heritage, its tourism practices, management potential and cultural participation. Informal conversations are also part of the survey to delve into the local ancestral practices, oral history and their evolving relationship with the landscape. The qualitative data is enriched with this local knowledge, memory and how it is transmitted.

Participants for the research are decisively selected, with professionals selected based on their knowledge, experience and involvement in projects related to cultural and architectural heritage, and planning. Likewise, locals are chosen from various age brackets and backgrounds, while tourists are randomly selected to establish diverse viewpoints. All the participants are clearly briefed about the nature of the study; its purpose and verbal consent is acquired prior to interviews or surveys with their anonymity maintained throughout the research phase. The verbal consent involves conducting and publishing the study. The study keeps their identities anonymous with no photos or images used.

The quantitative findings are analyzed with the help of Statistical Package for Social Sciences (SPSS) software. Descriptive statistics such as frequency distributions are used to broaden patterns of awareness and opinions, while spearman correlation analysis is used to identify relationships between variables such as cultural and regional identity, and architectural knowledge. This analysis helps to create improvements in awareness levels, management potential as well as in tourism infrastructure. Together with the quantitative data, thematic analysis is carried out for qualitative data acquired from interviews, field notes, and on-site findings. Variables like spatial memory, construction techniques, challenges in lifestyles due to the geography are cross-checked from the survey results to ensure coherence and accuracy in interpretation.

Although the research design strives for comprehensiveness, it acknowledges certain limitations. These include the time-bound nature of the data collection phase, seasonal fluctuations in the number of tourists, logistical challenges during fieldwork, and communication difficulties caused by language problems. Nonetheless, a strong basis for evaluating Hunza's potential as a cultural landscape is provided by the integration of several data sources and analytical methods.

1.4. LITERATURE REVIEW

Table 1.1 looks at a literature review matrix of some of the previous thesis examples that are similar to this study. These help in observing previous studies done related to the topic and also help to point out gaps to be fulfilled in the study.

Table 1.1 Literature Review Matrix (Prepared by Author)

Author	Year of Publication	Title	Main Discussion
Lucia Della Spina & Claudia Giorno	2021	Cultural Landscapes: A Multi-Stakeholder Methodological Approach to Support Widespread and Shared Tourism Development Strategies	Suggests a methodological framework that includes various stakeholders to devise tourism strategies aimed at preserving cultural landscapes, suitable for regions such as Hunza

Yang Qi	2023	Research on the Changes in Cultural Landscape of Tourist-Type Traditional Chinese Villages from the Perspective of Cultural Memory	This study, while concentrating on Chinese villages, provides insights into the effects of tourism on cultural landscapes and collective memory that are pertinent to understanding comparable dynamics in Hunza.
Jamil Muhammad Kashif	2000	The Changes Induced in Cultural Objects of Hunza by International Tourism	This thesis investigates the impact of international tourism on the cultural artifacts and traditions of Hunza, emphasizing the conflict between modernization and cultural preservation.
Wajhullah Fahim	2023	Cultural Tourism in Hunza: A Case Study	Examines cultural tourism through the lens of tourists in Hunza, pinpointing challenges and suggesting strategies for sustainable development of cultural tourism.
Seema Begum	2016	Impact of Tourism on Socio-Economic Development: A Case Study of Hunza Valley	Explores the socio-economic effects of tourism in Hunza, highlighting its influence on local livelihoods, cultural identity, and community development.

CHAPTER 2

CULTURAL LANDSCAPE, HERITAGE AND TOURISM: CONCEPT AND CATEGORIES

This chapter explores the main definitions, classifications, and international examples relating to cultural landscapes in order to lay the conceptual and theoretical groundwork for the research. In order to offer a systematic knowledge of heritage value and acknowledgment, it looks at the selection criteria for UNESCO and World Heritage Sites as well as other types of heritage classification. The chapter also examines the main kinds of tourism, focusing on cultural tourism, including its subcategories and traits. Contextualizing the subsequent examination of Hunza's cultural identity within global frameworks and tourist strategies requires this fundamental information.

2.1. CULTURAL LANDSCAPES

Combined works of nature and man that depict the evolution of human society and settlement over time, under the impact of physical limitations and/or opportunities offered by their natural environment, and of successive physical, social, economic, and cultural forces (UNESCO, 2024). Carl O. Sauer defines cultural landscapes as the result of the interaction between natural settings and human actions, and this conceptualization is consistent with his definition (Sauer, 1925).

Cultural Landscapes showcase how the communities adapt to their surrounding conditions by shaping them based on their natural and cultural needs. Hence, these cultural properties are not just physical ensembles but also a representation of rich histories, traditions and values of the people that have lived there over time (Rössler, 2006). As described in the first article of World Heritage Convention and as inscribed in the World Heritage List, Cultural Landscapes are selected on the basis of Outstanding Universal Value of the interaction between human and the environment as well as how they are representative of their clearly-defined geo-cultural regions, and their capacity to demonstrate distinctive cultural elements. Their selection criteria also often require reflections of various sustainable and traditional land-use techniques resulted from the

limitations and opportunities of the geography. As a consequence of these land-use techniques, the overall natural and cultural values of the region are not only maintained but also enriched (UNESCO, 2024).

Hunza Valley illustrates the visual as well as functional narrative of a cultural landscape site, having witnessed centuries-old human adaptations to the geography. It reflects a deep-rooted connection with nature, tradition and settlement that has been passed on and is being continued till date. The connection of the community with high-land farming influenced by the region's topography and climate, the architectural structures, and natural, local resources has become an identity of the region.

Types of cultural landscapes

According to the World Heritage Convention, there are three fundamental categories of Cultural Landscapes that are adopted as qualifying for listing (UNESCO, 2024):

Clearly defined landscapes

These types of Cultural Landscapes are purposefully created by man to serve as an ornament and often accompanied by monuments. Examples include gardens, parks, etc. They are often symbolic and created for aesthetics, recreation, religious, and/or commemorative purposes.

One of the prime examples of Clearly Defined Landscape are the Alhambra Gardens in Spain (see figure 2.1). With their dynamic and intricate layout, they are an illustration of human genius representing symbols of Islamic culture (UNESCO, 2024).



Figure 2.1 Alhambra Palace Gardens (Britannica, 2024).

Organically evolved landscapes

These kinds of landscapes are created in connection with, or as a consequence of the surrounding environment. They emerge in response, to an economic, administrative or religious narrative. These landscapes are evolved over a long period of time by the interactions of humans and their surroundings (Rössler, 2006). The shape and characteristics of these landscapes illustrate the process of development. They are further divided into the following sub-categories (UNESCO, 2024):

relict landscapes

A type of Cultural Landscape where an evolution has occurred and ended or abandoned in the past over a period of time (or abruptly), and whose characteristics resulting from the evolution may still be observable

The Alto Douro Valley and Vineyard in Portugal (see figure 2.2) that is now being used as a tourism site fits well in the example of Relict Landscape that has been repurposed. Along with being a tourist spot, it still produces the centuries-old wine that has been transferred from the predecessors (UNESCO, 2024).



Figure 2.2 Alto Douro Wine Region (Therin-Weise, 2011)

continuing landscapes

The concept of Continuing Landscape refers to a state where evolution is ongoing and actively influences society. Although it remains closely connected to ways of life, it also reflects the changes that have taken place over time.

The Terraced Gardens of Agriculture in Bali, Indonesia depict this example of an active evolution where sustainable techniques and farming practices are used till date as seen in figure 2.3. These are maintained for centuries where humans work in harmony with the landscapes (UNESCO, 2024).



Figure 2.3 Water Reservoir. Cultural Landscape of Bali Province: The Subak System as a Manifestation of the Tri Hita Karana Philosophy (Ministry of Education and Culture of Indonesia, 2004).

Associative landscapes

These landscapes have a profound and strong religious, cultural and/or artistic association with the natural elements rather than materialistic cultural evidence, which may be insignificant or absent altogether (UNESCO, 2024). Associative Landscapes have a deep symbolic connotation, connected with spiritual traditions and collective memory (Rössler, 2006).

The spiritual beliefs and traditions of the Incan civilization depicted in the Valley of Incas in Peru (see figure 2.4) prove to be linked with this type of cultural landscape.



Figure 2.4 Ruins of Inca Civilization (Basso, 2023).

2.2. UNESCO SELECTION CRITERIA OF CULTURAL LANDSCAPES

For the sites to be included in the World Heritage List, they must fulfill at least one of the ten criteria; six cultural and four natural criteria. These criteria include:

- i. as a representation of a human creative genius masterpiece;
- ii. to display a significant exchange of human values across time or within a cultural region, influencing architecture, technology, monumental arts, urban planning, or landscape design;
- iii. to provide a distinctive or at minimum extraordinary testimony to a cultural tradition or civilization that is current or has vanished;
- iv. to represent an exceptional specimen of a kind of edifice, architectural or technological collection, or terrain that exemplifies notable phase(s) in the history of humankind;
- v. to exemplify an exceptional case of a traditional human settlement, land-use, or sea-use that represents a culture (or cultures), or human relationships with the environment, particularly when it has become susceptible to the effects of irreversible change;
- vi. to have a direct or concrete connection to events or enduring practices, to concepts or convictions, or to exceptional artistic and literary creations of global

importance. (The Committee believes that this criterion is best used alongside other criteria);

vii. to comprise extraordinary natural occurrences or regions renowned for their remarkable beauty and aesthetic value;

viii. to serve as remarkable examples of key phases in the history of the Earth, encompassing the chronicle of life, important geological processes that are still occurring in the formation of landforms, or notable geomorphic or physiographic attributes;

ix. to exemplify important ecological and biological processes that are currently taking place in the evolution and development of terrestrial, freshwater, coastal, and marine ecosystems and communities of organisms;

x. to encompass the key and noteworthy natural habitats vital for in-situ preservation of biological diversity, including those that harbor threatened species deemed to have exceptional universal value scientifically or from a conservation perspective.

2.3. THE HERITAGE CATEGORIZATION

Cultural heritage

According to the World Heritage Convention, Cultural Heritage are categorized into three parts: monuments, a group of buildings and sites. From the perspective of art, science or history, the architectural works, monumental or archeological structures, inscriptions, cave dwellings or mix of these characteristics having an Outstanding Universal Value are to be considered cultural heritage under the category of Monuments.

Group of buildings refer to single entity or combined unit of buildings that have an Outstanding Universal Value in terms of their architecture, homogeneity or their place in the geo-cultural region in the viewpoint of art, science or history.

Sites considered under cultural heritage are the works of man or joint works of man and nature as well as archeological sites having an Outstanding Universal Value in the perspective of history, aesthetics, ethnology or anthropology.

And lastly, Museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance. It includes tangible heritage and intangible cultural heritage embedded into cultural, and natural heritage artefacts, sites or monuments (UNESCO, 2024).

Natural heritage

As described in the World Heritage Convention, Natural Heritage is also categorized into three parts; Natural Features, Geological and Physiographical Formations and Natural Sites. Natural Features having physical, biological or a mix of both formations with an Outstanding Universal Value from aesthetic or scientific viewpoint are considered Natural Heritage.

Geological and Physiographical Formations and accurately outlined areas having habitats of endangered plant and animal species having Outstanding Universal Value from the perspective of science and conservation comes under the category of Natural Heritage

And finally, Natural Sites or accurately distinct natural areas having an Outstanding Universal Value from the perspective of science, natural beauty or conservation also form Natural Heritage (UNESCO, 2024).

Mixed cultural and natural heritage

If the properties fit wholly or partially into the definitions of both Cultural or Natural Heritage as described by the World Heritage Convention are to be considered Mixed Cultural and Natural Heritage (UNESCO, 2024).

World heritage convention

World Heritage Convention was adopted in 1972 by the member states of UNESCO (United Nations Educational, Scientific and Cultural Organization) to ensure the identification, protection, conservation and presentation of the world heritage including

cultural and natural heritage having outstanding universal value to the upcoming generations.

The concept of Sustainable Development was also adopted after the execution of the World Heritage Convention by the international communities (UNESCO, 2024).

Outstanding universal value

Cultural or Natural Significance that goes beyond the national boundaries and is an asset to the present and future generations of entire humanity is considered to have Outstanding Universal Value. It comes under the category of Heritage and its protection becomes mandatory for the entire international community. There are, however, certain criteria for such properties that are set by the Committee to be inscribed in the World Heritage List (UNESCO, 2024).

2.4. TOURISM CLASSIFICATION

Sustainable tourism

Tourism that thoroughly considers the social, economic, and environmental effects it has both now and, in the future while taking into account the requirements of visitors, industry, environment and local communities (UNWTO, 2005).

Sustainable Tourism requires the application of its guidelines to all forms of tourism and its niches. The management practices under Sustainable Tourism Development are as follows:

- It should utilize the ecological assets up to its optimum condition while maintaining natural processes and protecting natural heritage and biodiversity.
- It should give respect to the host communities by valuing their socio-cultural identities, protecting their built and living cultural heritage and traditions, and also contributing to learning inter-cultural tolerance and understanding
- It should make sure to provide socio-economic benefits to all stakeholders ensuring job opportunities and social services to the host communities and reduce poverty.

However, alongside these practices, it requires well-versed and unanimous contribution of the host communities which includes a strong government, local people and the business holders. Sustainable Tourism is a lengthy and progressive process which requires cross-checking of these practices, constant monitoring, preventive and corrective measures, high tourist satisfaction, creating meaningful travel experiences and, lastly but most importantly, raising awareness about these practices and promoting them (UNWTO, 2005).

Cultural tourism

A form of tourism where visitors are primarily motivated by the desire to explore, learn, experience and enjoy the offerings of a destination. These offerings encompass a range of tangible and intangible aspects that define a society, such, as its art and architecture, historical and cultural heritage, culinary traditions, literature, music, creative industries, as well as its living cultures, with their unique lifestyles, values systems, beliefs and traditions (UNWTO, 2017).

Types of cultural tourism

Based on the significance of purpose and depth of experience of cultural tourism, a cultural tourism typology was identified by Bob McKercher whose work was tested through research published in an article in the International Journal of Tourism Research (UNWTO, 2017). According to the Journal, Cultural Tourism falls into the following categories:

purposeful cultural tourism

Purposeful Cultural Tourism is determined by intentional visits to cultural sites and activities. It portrays a firm interest in visiting, understanding, and experiencing various cultures. It involves travelling with sole purpose of learning about the different features of culture i.e., art, festivals, rituals, history, historical sites, religion, or customs etc., that are representative of a certain region or people.

Purposeful Cultural Tourism is an immersive experience in which the tourists get deeply involved with their context. It requires high education and better understanding

from the tourists, yields economic benefits and involves active participation of the tourists (UNWTO, 2017).

An example for Purposeful Cultural Tourism can be of the tourists visiting the forts in Hunza Valley to learn about their historic route and significance.

site-seeing cultural tourism

This category of cultural tourism represents tourists whose inquisitiveness drive them towards their destination tourists whose inquisitiveness drive them towards their destination. Historical landmarks, religious ensembles, museums, galleries and other similar visual experiences define how the tourists of this category explore the culture. It involves guided tours to sites, visually capturing them in minds and memories.

It requires curiosity of the tourists whose undying quest for knowledge of culture bring them to art, architecture and history of the region. Site-seeing cultural tourists not only experience visually but they indulge deep into tis cultural symbol. They are especially interested in visiting historical or heritage sites, landmarks, and architecture of a region (UNWTO, 2017).

Tourists visiting Istanbul, Turkey to experience its historical background and have a stopover at Hagia Sophia etc. can be an example of Site-seeing Tourism.

casual cultural tourism

Casual Cultural Tourism is towards an impulsive and spontaneous side of tourism. It involves unprompted decisions to visit a historical site, a food street, or a cultural activity etc. during a tourism itinerary. It represents tourists who might be interested in cultural exploration but might not fully indulge into its depth. The tourists of this category are more inclined towards exploring cuisine, art, music of a region rather than visiting architectural sites. Although the decisions are spontaneous, this type of cultural tourism may revive unique and dying expressions of culture (UNWTO, 2017).

Example of this tourism type can be the tourists attending the traditional music performances and cultural rituals while travelling a region.

incidental cultural tourism

Incidental Cultural Tourism revolves around general travelling instead of travelling for cultural experience. It is named Incidental because during a general travel, tourists might happen to join a cultural activity, or visit an architectural site that eventually adds them in the list of cultural tourists. The tourists of this category often have chance encounters with culture instead of purposeful exploration (UNWTO, 2017).

If a business traveler in Mexico incidentally happens to visit a Mexican market and comes across traditional Mexican food, this will be known as an example of this type.

serendipitous cultural tourism

This is yet another type of chance encounter with cultural exploration. Serendipitous Cultural Tourism is a sudden, unexpected encounter with any cultural activity which enrich the tourists. It can involve discovering a food street, a local cultural festival, engaging with local cultural enthusiasts etc. This type of cultural tourism might be a head-start to a new interest in cultural knowledge (UNWTO, 2017).

Tourists attending seasonal festivities or traditional wedding styles of a particular region and be fascinated by them can be an example of this type.

CHAPTER 3

THE TRICHOTOMY OF CULTURAL LANDSCAPE, TOURISM AND HERITAGE

This chapter examines how cultural landscapes, tourism, and heritage interact dynamically to generate a trichotomy that is crucial to comprehending place-based development and preservation. It looks at how tourism affects and is affected by cultural landscapes, highlighting how they shape tourist experiences and maintain local identity. The chapter also explores how to assess cultural landscapes, how tourism affects these delicate locations, and how to strategically incorporate cultural landscapes into sustainable tourism models. Finally, it talks about the potential and difficulties developing areas have when using cultural tourism as a tool for economic and cultural development.

3.1. INTERACTION BETWEEN CULTURAL LANDSCAPES AND CULTURAL TOURISM

It is fascinating to observe how the appeal of historical significance and ancient practices may play a key part in drawing tourists on a worldwide scale in today's fast-paced culture. This is the role that cultural tourism plays in promoting a historic and culturally-rich site. Many areas rely on it as their only source of income, bringing with it not only financial rewards but also opportunities for the development and preservation of regional culture. Additionally, it offers chances for cultural tourism to transform and promote local identities and lifestyles (UNWTO, 2017; Gössling, Scott, Hall, 2015). Figure 3.1 puts together and concepts of cultural landscape and tourism together in a Venn diagram and depict how they interact with each other.

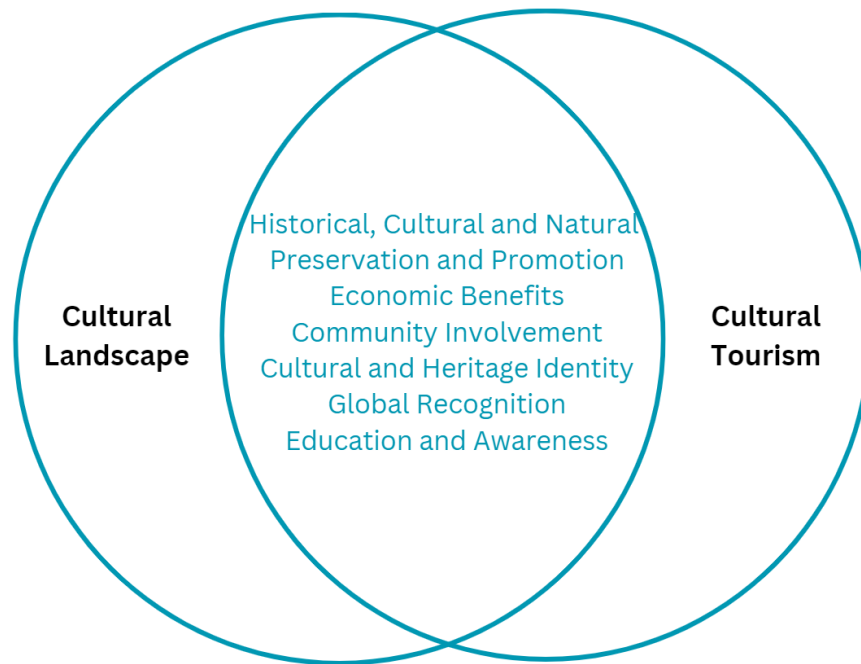


Figure 3.1 Overlapping of Cultural Landscape and Cultural Tourism (Prepared by Author)

Cultural landscape's role on tourism

When the definitions of cultural landscape and cultural tourism are compared, it is clear that the former is actually a fundamental resource for the growth of the latter (Timothy, 2011), and that tourism always takes place in an area with some combination of aesthetic appeal on both a natural and cultural level (Smith, 2009). Therefore, if the fundamental principles and qualities of the resource i.e. the cultural landscape are violated, not only will the area's level of appeal decline, but also tourism would vanish (Hall and Williams, 2008).

The synergy of tourism and cultural landscape has now emerged as a key goal in the supervision and development of tourist sites. Therefore, evaluation of Cultural Landscape Sites is crucial to bring tourism in the region which involves Recognition and Classification (Burns and Holden, 1995). Recognition can be made with the process of mapping the identity factors on the specific regions of cultural landscapes, which contain cultural and natural value. Whereas, Classification is based on the potential and constraints of maintaining landscape features and using them as tourist resources (UNWTO, 2004).

As illustrated in figure 3.2, resources must be evaluated in order to determine the components of cultural and heritage identity. Recognition, authenticity, and distinctiveness of the cultural landscape are crucial assessment factors when choosing possible tourism destinations. This evaluation process results in the long-term preservation of the region's cultural values; the preservation of the region's identity; and, the development of socio-cultural and experiential tourism environment that is globally recognizable and has a positive impact on the condition of the local economy and community. For the improvement of tourism, the data produced for cultural landscape resources is essential

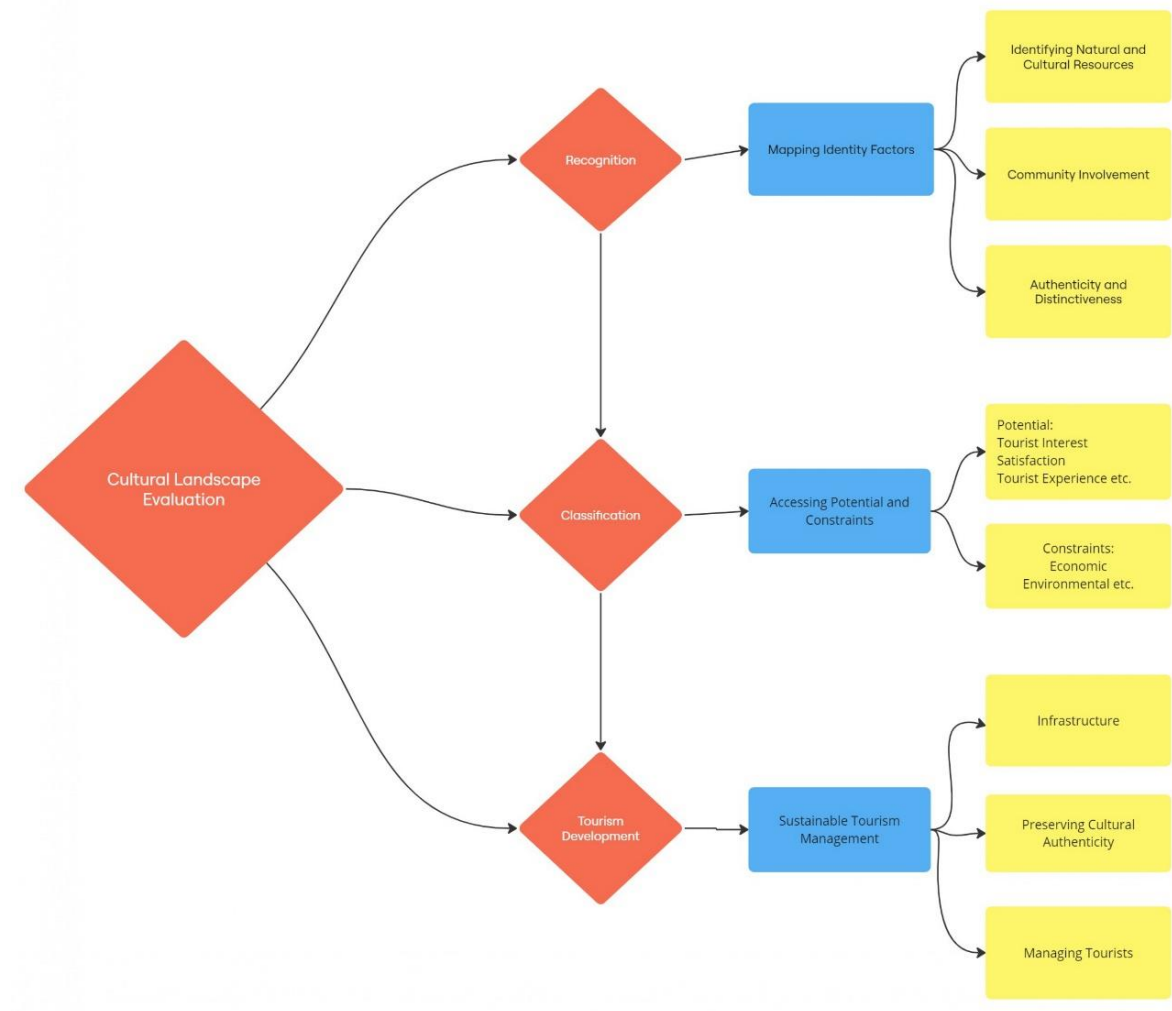


Figure 3.2 Cultural Landscape Evaluation Process (Prepared by Author)

Effects of tourism on cultural landscape sites

Living cultural landscapes are distinguished by their significant human component since they are "combined works of nature and humanity" that "express a long and intimate relationship between people and their natural environment" (Cohen, 2014). The idea of a living cultural landscape necessitates considering the relationship between topography and the contributions, traces, and memories of those who have shaped it, not just as a legacy of the past but also as a dynamic and continuous construction of those who live there on a daily basis (Mowforth and Munt, 2015).

In contrast to other World Heritage sites that are more geographically and thematically constrained, living cultural landscapes have complex and polysemous notion that raise special problems for their tourist development. These challenges were put forward in the 6th UNESCO Chair seminar in 2015 and are listed below (UNESCO, 2015):

- Cultural landscape boundaries present the challenging question of how best to grow tourism within them because there may not be general coherence and consistency between the area that has been included to the World Heritage List and the "destination." Should the growth of a tourist attraction perfectly match the administrative UNESCO boundary as it is this perimeter that is given prized World Heritage designation, or should it match the geographic bounds of the cultural landscape? What connections do current destinations inside or close to the defined perimeter have with each other?
- The idea of productive activities is implied by the idea of "living cultural landscapes," and the sustainability of the latter is closely tied to the inscription of the former (UNESCO, 2015). Therefore, it is important to recognize the restrictions brought on by tourism-related activities that not only help to glamourize certain locations but may also impede other economic activities by their introduction to the region in question (Buckley, 2012).
- The investigation of each actor's position and function in the development, dissemination, and construction of a new destination is necessary due to the sizable number of individuals participating in these complicated regions (UNWTO, 2005).

What type of tourist governance could be established to guarantee cooperation between actors with various goals?

- For the local populace, living cultural landscapes are places to live and work. Those who live in, work in, and travel to these many environments may not always have the same expectations of them (Scheyvens, 2002). Thus, conflict and friction are not always absent from the "tourism development" of living cultural landscapes. How can the interaction between the long-term residents of these environments and transient guests or tourists be guaranteed? (Hall and Williams, 2008)

3.2. STRATEGIES FOR INTEGRATING CULTURAL LANDSCAPES WITH TOURISM

Recording cultural and historic resources

To comprehensively understand a region's unique identity, it is fundamental to map and document its key features such as important natural landmarks, traditions, cultural, historical and architectural sites, and lifestyles that are molded by the region's landscape. This evaluation can define the complex ways in which the environment, culture, and history are intertwined together. This ensures generation of a learning platform for the upcoming age bracket to study the intricacy of the region and also get familiar with the local community (Smith, 2009).

Moreover, it allows to bring scholars, tourists from around the globe, as well as culture fanatics to explore the region which ultimately grows its global recognition leading to increased chances of preservation initiatives and incorporation in international heritage conservation models (Hall and Williams, 2008).

Infrastructure development

Infrastructure development and tourism planning of a region enable integrated strategies that work for the benefit of both: the local community and the environment. It encompasses thoughtful evaluation and involvement of stakeholders that include local community, tourists, government and other authoritative parties (Mowforth and Munt, 2015).

Integrated and strategic planning comprise of socio-economic, cultural and environmental efforts that collectively work for tourism development. Moreover, these initiatives do not compromise on the natural and cultural resources available in the region instead they nourish them. Strategic infrastructure development also involves setting feasible actions such as policy formation, goal setting and implementation, and fulfilling the demands and requirements of the local community and tourists (Gössling, Scott, Hall, 2015).

Community involvement and education

To support local economy and preserve cultural assets, the involvement of community, along with other stakeholders and interest groups is essential. Local community can be involved at two steps in promoting tourism: one at decision-making, and two at yielding benefits from tourism development (Timothy, 2011).

At both the stages, education of the locals on the concepts of tourism promotion and significance, presence of cultural assets and resources is a primary requirement. Locals can be connected with cultural landscape and tourism promotion via determining their own goals and concerns regarding incomes, employment, and level of engagement in the tourism development process (Scheyvens, 2002).

Sustainable tourism practices

Sustainable Tourism refers to the policy and principles that ensure tourism development while protecting the region's natural, built, and cultural assets for future growth. Adopting and sticking to sustainable tourism practices tend to lessen the negative impacts on cultural landscapes and lifestyles of the local community and keeps the natural resources protected (UNWTO, 2004).

However, sustainable tourism seems to be a very broad concept and therefore, instead of focusing on the implementation of the umbrella term, it is important to study the constraints and limitations of the specific region and work on them directly to guarantee feasible and positive results (Buckley, 2012).

Marketing and promotion

Marketing and Promotion have become a right-hand to all the businesses, where reaching out to the target audience has significantly developed. With the advent and growth of digital marketing, it is easier to understand the demand of the potential groups. Tourism industry has also been positively and exponentially impacted by the development of digital marketing and promotion where the tourists have access to all kinds of information about the area, its reviews, experience, bookings and offers (Kotler, Bowen, Makens, 2017).

With the befitting strategies of marketing and promotion, cultural landscape and tourism can be amplified, and all the above-mentioned strategies can become a tool of marketing and reaching the right audience (Pike, 2015).

3.3. OPPORTUNITIES AND CONSTRAINTS OF CULTURAL TOURISM IN DEVELOPING REGIONS

While it is apparent that the emerging sites of cultural tourism desire to thrive on national and international levels, it is pivotal to research about the opportunities and constraints the new site may appear with. Apart from the common benefits and challenges of a tourism site, there can be some that are site-specific requiring special evaluation (Burns and Holden, 1995).

Looking into the opportunities of such emerging sites, the first and foremost aspect is the tourism influx and its management. Managing increased tourist influx together with development of infrastructure and protecting the cultural and natural identity is imperative to safeguard its authenticity. Additionally, with the increment in tourism, environment can be benefitted in terms of additional protection of natural landscapes and preservation strategies. With that come the culture-uplifting opportunities. Endorsement of local traditions, lifestyles, living and settlement patterns, improved recognition and global acceptance can be achieved in this way. Moreover, the resulting economic opportunities such as profit production, workforce expansion can also not be neglected (Cohen, 2014).

Although the opportunities are worth consideration, the constraints of developing sites are of utmost significance too. It is essential to note that the opportunities can turn into challenges and constraints if they are not managed with diligence. Be it the flow of tourists, environmental conditions, cultural and economic integrity, all of them can be compromised and adversely influenced (Weaver and Lawton, 2017)



CHAPTER 4

EXAMPLES OF TOURISM MODELS AROUND THE WORLD

To draw a relationship between cultural landscapes and cultural tourism, it is essential to study similar regions to Hunza Valley that became successful in utilizing their historical and cultural significance or cultural landscapes to encourage tourism. These cases can provide tourism management model and strategies for Hunza Valley which are feasible and practical, leading to its global recognition.

4.1. BHUTAN

With the prime objective to amplify the socioeconomic state of Bhutan through foreign exchange, cultural tourism was introduced by showcasing its distinct cultural traditions. With the tourist influx beginning to accelerate, the royal government of Bhutan was concerned about its adverse effects on the environment and cultural identity. To cater to this cause, the government introduced the policy of “high-value-low-volume” tourism, which did not limit the number of visitors but managed them strategically.

Until 1991, the Bhutan Tourism Corporation, a self-financing authority adopted the government’s policy by taking all the tourists of the year as their guests catering to all their requirements through all hospitality services. This led to the success of bringing tourists and creating a worldwide recognition. To encourage the development of the private sector, the government then privatized the tourism industry in the same year. Therefore, even though the government increased the tourist tax revenue, the previous initiative had already hit the target of reaching the right audience and it did not stop or slow down the tourism industry.

To maintain check and balance, a regulatory body known as the Department of Tourism was established. The main contributions of the department were to check the compliance of the government’s policy, management of tourist influx, regulating prices of various excursion activities, ensuring the follow up of laws and regulations, tourist payment and visa procedures, preservation of local culture, environment and unique

identities, worldwide recognition, development of foreign exchange methods, and continual research studies.

The main features of Bhutan that attracts worldwide tourists encompass their lifestyle, cultural and traditional practices, cultural and historic architecture and its unique landscape as depicted in figure 4.1. The strategies of Bhutan to implement on cultural tourism while protecting its heritage is applauded globally. This makes more sense when it is studied that safeguarding the natural and cultural integrity is part of their strong value system.

Nonetheless, with the increased quantity of tourists, there arises the need to diligently control and evaluate the cultural and environmental effects of tourism.

With the mindset of prioritizing preservation of the cultural and natural integrity, the objective of the Bhutanese government to increase foreign exchange seems fruitful. Therefore, even after the privatization and increment in tourist taxes, there has only been an amplification in the tourism industry.

After witnessing the exponentially-grown profits since the privatization, many business owners are interested to invest in this industry eventually resulting in boosted job opportunities including cooks, tour guides, transport and hospitality service caretakers. Moreover, it also has shed light on the indigenous cottage industry of Bhutan as well as establishment of new handicraft shops. Hence, the tourism not only monitors the tourist influx but also enhances the development policies to make the most out of it (Dorji, 2001).



Figure 4.1 Thimpu, Bhutan: Tashi Chho Monastery. (Vikander, 2024).

4.2. BAMIIYAN VALLEY, AFGHANISTAN

The cultural landscape of Bamiyan Valley as described in by UNESCO World Heritage Convention portrays the historic Bactria (civilization) showcasing numerous cultural and traditions impacts and creative, religious developments from 1st to 13th centuries. These influences were imposed on the Gandhara school of Buddhist art. The Bamiyan Valley region comprises of various Buddhist Monks traces and preserves including sanctuaries and fortified structures marking the Islamic period.

To safeguard this historic asset, a management model is in the making. Its prime objective is to put forward a framework which protects, publicizes, and boosts a sustainable tourism initiative in the valley. Additionally, it allows excavations of the archeological remains for further research and study, leading to attract more scholars and historic and cultural enthusiasts.

A regional development plan including restoration of houses, establishment of health and educational facilities, and provision and growth of agriculture and infrastructure of the region, is under preparation and a responsibility of the governor of the province.

The Bamiyan Valley contains a series of historic areas, whose management is in the control of the Ministry of Information and Culture, Institute of Archeology, the Department of the Preservation of Historical Monuments and the Governor of the Bamiyan province. Up to eight guards and additional police force under the duty of protecting the site and cultural property against vandalism are appointed.

Along with these contributions, for the check and balance of administrative, scientific and technical resources, global associations are also responsible for its management. Moreover, UNESCO has initiated a three-phase restoration plan to amalgamate Buddha niches that have been vandalized and to protect the artefacts that were recovered from the intentional destruction which includes demining the site.

Sandwiched between the high peaks of the Hindu Kush in the middle hilltops of Afghanistan lies the Bamiyan Valley which discloses itself into a huge sink with its north boundary being a series of rocky cliffs. This historic edifice encompasses eight different sites within the valley's vicinity and its streams in the close proximity. There are two enormous niches sculpted out in the cliffs of Buddha statues creating a large area of Buddhist cloisters, chapels and sanctuaries, which have been vandalized as depicted in figure 4.2. It dates back to around 3rd to 5th century C.E. There still remains wall murals and seated Buddha figures in the caves and niches. There are many other significant caves containing historic paintings and Buddha statue extracts dating back to 6th to 3th centuries, Sasanian period.

There also remain the fragments of the fortress of Shahr-i-Ghulghulah, dating back to 6th to 10th centuries C.E., marking the original settlement of Bamiyan as a resting ground on the Silk Route linking China and India through the Bactria civilization. This comes up as a testimony to the exchange of Indian, Hellenistic, Roman, Sasanian and Islamic influences for the growth of creative portrayal in the Gandhara School. The site also contains various other fragments of fortified walls and settlements and other ruins

which were covered by the 10th to 13th century developments under the rule of Ghaznavid and Ghorid dynasties.

With the use of mud brick structures and traditional usage of land, and containing the fragments of its ruins, it serves as a cultural landscape site for the tourists in terms of forms and materials, landscape and geography. Although currently in a fragile state, the Bamiyan Valley remains active in having to witness various cultural eras of its history.

The cultural and historic assets in the Bamiyan Valley have witnessed numerous intentional destructions resulting in its delicate condition. The most destructive one was the vandalism of the centuries-old Buddha statues in 2001. Nonetheless, many of the resources that hold Outstanding Universal Value such as Buddhist and Islamic architectural edifices and their existence in the valley's landscape are still undamaged. These include huge Buddhist monastery in the cliffs containing the two enormous Buddha sculptures.

With the help from the rigorous management strategies of the government and the international authorities, Bamiyan Valley in Afghanistan remains a cultural landscape site, successfully catering to serve the tourists (UNESCO, 2024).



Figure 4.2 Cultural Landscape and Archaeological Remains of the Bamiyan Valley. (Balsamo, 2024)

4.3. CULTURAL LANDSCAPE OF HAWRAMAN/URAMANAT, IRAN

Uramanat, also known as Hawraman (characterized by centuries-old Hawrami tribe), is situated in the mountainous region of Zagros, Iran. It is a listed Cultural Landscape site featuring an agro-pastoral community famous for its stepped architecture, terraced agriculture and rich cultural rituals of the local community. This site highlights the inter-relationship between the Hawrami community with its mountainous topography.

The unique architecture of the region depicts stone houses built on steep slope in cascading manner, representing the adaptation of the people with its landscape (see figure 4.3). Additionally, the local community is renowned for keeping its millennia-old traditional rituals, lifestyles and language that reveals its ancestral routes. Moreover, the demonstration of terraced farming and other agro-pastoral activities highlights the adaptation of sustainable land-use over the mountains.

The cultural Landscape of Uramanat is integrated with cultural tourism where Hawrami people take the lead and immerse the tourists to experience their local festivals, rituals, Sufi traditions, music, and crafts. Tourists are facilitated by local guides to engage in these activities as well as stay at locally-run guesthouses and directly witness the preserved traditional lifestyles. Besides, they also explore Uramanat's eco-tourism with its natural setting and biodiversity along with trekking, hiking, and bird-watching facilities.

Traditional Architecture and cultural practices which are the pinnacle of cultural tourism in Uramanat drive the local community's interest into preserve them. The revenue generated by tourism incentivized local craftsmen, supports conservation and maintenance of cultural sites and houses, while awareness programs promote the reputation of preserving cultural landscape. The government monitors the tourist influx by introducing sustainable tourism initiatives to affirm conservation efforts and avoid any disturbance between the harmony of culture, heritage and tourism (UNESCO, 2024).



Figure 4.3 Palangan Village in Kurdistan. (Sedighi, 2017).

4.4. KOUTAMMAKOU, TOGO

According to the UNESCO World Heritage Convention, Koutammakou is a cultural landscape site linking the borders of northern Togo and Benin. Belonging to the Batammariba people, it showcases their traditional tower houses (also known as Takienta) made of mud symbolizing their authentic cultural and regional identity.

The Takienta made of mud and thatch are multi-story, cylindrical homes that are used for accommodation, storing grains, and for defensive purposes as shown in figure 4.4). This multi-functional architecture is emblematic to the local community's construction skills and traditions. The site comprises of sacred forests, rocks, and sites that are reflective of the locals' spiritual beliefs. Koutammakou is an example of living cultural landscape where traditions and rituals are actively prominent. Their built environment and landscape are spiritually connected through their ancestral beliefs and culture. The sustainable land-use of the local materials reflects their deep-rooted values for nature.

Koutammakou is another example where tourism is run by the local community. Tourists engage in daily activities, festivals, ceremonies, and stay in local houses and witness the inherent tradition. They also get educated through guided tours about the local construction techniques of Takienta houses as well as knowing about the cultural and spiritual significance of their sacred sites. The revenue that the tourism generates supports local economy and boosts local craftsmen businesses.

The economic benefits created by tourism support the preservation of local architecture and culture and simultaneously the presence of Batammariba tribe increases the integrity and authenticity of the cultural landscape. Furthermore, UNESCO promotes eco-tourism in the area as well as community engagement in conservation process, while the government assures to document and transfer the native knowledge to future generations (UNESCO, 2024).



Figure 4.4 Koutammakou, the Land of the Batammariba, Togo. (Joffroy, 2024).

4.5. SUKUR CULTURAL LANDSCAPE, NIGERIA

Well-known for its terraced fields, stone-paved walkways, and the Chief Palace (also known as Hidi Palace) the cultural landscape of Sukur is situated in the mountain regions of Mandara, Nigeria (see figures 4.5). Sukur is also renowned due to its notable iron industry and inherent social and communal integrity with the land.

Sukur showcases creative terraced agricultural techniques to fertilize the mountainous topography and adapting to a sustainable land-use (see figure 4.6). In addition to their mastery in their terracing practices, they also excel in iron-smelting industry also tied to their culture. Their comprehensive understanding of local materials and construction methods is a reflection of their skills that are depicted in the dry-stone structures, granaries, pathways, terraces, and the Hidi Palace. The region has been a witness of the local traditions and practices that are characteristic

of their historic significance where the chief (Hidi) governs the traditional system and is responsible for Sukur's cultural and economic life.

Cultural tourism is an essential component of Sukur as tourists are privileged to move around stone-paved paths, traversing in the terraced fields and first-handedly being educated about local agricultural methods, and architecture. Along with this heritage walk, they involve with the Sukur community directly and experience their lifestyles. Many initiatives are underway to educate tourists about the historic prominence of their iron industry.

Although limited funding has impacted conservation practices, but the local community is keen towards protection and maintenance of the site against civic conflicts. Nonetheless, cultural tourism supports the preservation of heritage and culture by monitoring their agriculture, stone, architecture and traditions, which creates a mutual benefit for the locals and the tourists (UNESCO, 2024).



Figure 4.5. Architectural Typology. (Douanla, 2021)



Figure 4.6 Sukur Cultural Landscape. (Douanla, 2021)



Figure 4.7 Terrace Farming. (Douanla, 2021)

Table 4.1 demonstrates a comparative analysis of Hunza with other relevant global examples of designated cultural landscapes or sites renowned for their successful

tourism policy. This analysis helps to situate Hunza in a larger global context, see its alignment with internationally-acknowledged sites and learn from these cases for future development.

Table 4.1 Comparative Analysis of Hunza with Relevant Cultural Landscapes and Successful Tourism Models (Prepared by Author)

Criteria	Hunza Valley, Pakistan	Bhutan	Bamiyan Valley, Afghanistan	Uramanat, Iran	Koutammakou, Togo/Benin	Sukur Nigeria
Landscape	Distinctive high-altitude valley, enclosed by Karakoram	Diverse elevation zones in Himalayas	High-altitude topography, located within Hindukush mountains	Steep mountain region, highlands of Kurdistan	Eastern houses with Savannah landscape	Hilly landscape and terraced fields
Cultural Significance	Tibetan, Central and South Asian fusion, historic trade route on the Silk road	Buddhist traditions, architecture and spirituality	Buddhist, Hellenistic and Islamic blend	Home to Hawrami tribe, retains Kurdish language and traditions	Inhabited by Batammariba tribe, well-known for mud-tower houses	Distinctive Hausa cultural heritage, ancient iron industry
Architecture and Built Environment	Historic heritage forts and palaces, terrace agriculture and housing, clustered settlement patterns, indigenous construction techniques, local material (stone, wood, mud etc.) houses	Forts (Dzongs), traditional housing layouts, monasteries	Cave paintings, massive Buddha figures and Buddhist temples	Clustered terraced housing, stone architecture w.r.t weather conditions	Takienta (towered mud houses) made of local materials	Slopped and stepped agricultural fields, iron industry, dry-stone construction.
Tourism Model	Attention towards sustainable tourism. Efforts on eco-tourism and cultural tourism	Sustainable tourism through “high value-low volume” dynamic	Heritage and Preservation tourism prompted by UNESCO	Recognized by UNESCO, cultural and eco-tourism initiatives Efforts on cultural and eco-tourism, acknowledged by UNESCO	Limited tourism due to preservation of traditional ways of life Confined to tourism to safeguard traditional lifestyles	Minimum infrastructure with lesser amount of cultural tourism

Governmental and International Recognition	Safeguarding cultural and architectural heritage, aims on sustainable tourism	Preservation of cultural and ecological character through firm government laws	UNESCO World Heritage Site; international restoration programs International preservation projects, UNESCO World Heritage Site	Listed in 2021, a UNESCO World Heritage Site	Listed in 2004, a UNESCO World Heritage Site	Listed in 1999, a UNESCO World Heritage Site
Community Involvement	Engagement in cultural and architectural heritage preservation, local businesses and eco-tourism	Community roles with government-backed projects on preservation	Preservation ruled by international parties and local government	Cultural preservation through community engagement	Traditional lifestyles, cultural authenticity	Preservation of indigenous practices
Tourism Management	Demands standardized infrastructure development models	Stern management with international tourism costs	Managed by UNESCO, vandalism prohibited via safety precautions	Sustainable tourism idea led by government authority	Restricted tourism infrastructure to preserve integrity	Traces of cultural tourism
Challenges	Modernization and unplanned urban expansion, limited resources and regulations, climatic variations	Harmonized economy and cultural integrity	Risks of vandalism and political disruption	Maintaining balance between modernization and preservation Efforts towards coordinating tradition vs modern	Infrastructure development while maintaining traditional lifestyle Preserving traditional living style, infrastructure evolvement	Protection of heritage iron industry, constrained economical surplus via tourism
Lessons for Hunza	Requirement of standardized models for supervision of heritage sites and tourism management.	It can adopt the policy of high value-low volume tourism from Bhutan	Similar collaborative drives for heritage preservation like Afghanistan	Iran's significant practices of balancing traditional activities with growth models	Similar community-driven efforts on cultural heritage restoration like Togo and Benin	Native craft and architecture maintenance like Nigeria.

CHAPTER 5

SITE-STUDY AREA: HUNZA VALLEY, PAKISTAN

This chapter provides a thorough analysis of the chosen research location, Hunza Valley, Pakistan, placing its architectural, social, and cultural setting within the thesis's framework. A physical examination that describes the area's topography, climate, biodiversity, historical context, geographical position, and accessibility comes first. A sociological study that looks at the local community's history, migration, linguistic and religious identity, cultural customs, and the responsibilities of important stakeholders comes next. An architectural study that looks at how geographic limitations have influenced settlement patterns, building techniques, and typologies across time, as well as current conservation initiatives and related difficulties, wraps off the chapter. In order to support the Hunza Valley's potential as an important cultural landscape, this multilayered research attempts to emphasize its distinctive cultural and architectural significance.

Figure 5.1 is a map that highlights Hunza Valley's geographical context along with its major road networks including Karakoram Highway, mountain peaks, rivers and lakes, and architectural landmarks.



Figure 5.1 Geography of Hunza Valley including major road networks, mountain peaks, rivers and architectural landmarks. (Prepared by Author)

5.1. PHYSICAL ANALYSIS

Location and geography

Gilgit Baltistan (formerly known as Northern Areas of Pakistan), one of the provinces of Pakistan is predominantly a mountainous region. Geographically, its coordinates are longitude 73.9° and latitude 35.35° and encompasses an approximate of more than 70,000 square kilometers, with a population of around 1.3 million. The

region shares its geopolitical borders with Afghanistan's Wakhan corridor to the north, China to the northeast, Khyber Pakhtunkhwa (one of Pakistan's provinces) to the west, and Azad Kashmir to the southwest. Simultaneously, it assembles four mountain ranges, namely: Himalayas, Karakoram, Pamir, and Hindukush.

There are ten districts in the Gilgit-Baltistan region and Hunza Valley is one of them. The strategic location of Hunza Valley lies at a height approximately around 2500 meters above sea level. It is situated within the Karakoram Mountain range and is at 74.7°E longitude and 36.3°N latitude. It is connected with Xinjiang province of China to the north through Khunjerab Pass, a crucial interaction between Pakistan and China via Karakoram Highway. Along the western side, it is linked with Ghizer district, Shigar and Skardu (districts of Gilgit Baltistan) to the East, while Nagar Valley which is across Hunza River, to the South. The valley is hemmed in by world's tallest mountain peaks: Rakaposhi (7,788 m), Ultar Sar (7,388 m), and Ladyfinger Peak (6,000 m).

Hunza Valley is also situated along the historic Silk Route, whereas its present-day connection with the Karakoram Highway paves its way for tourism, trade and cultural interchange. The Hunza River runs throughout the valley, which provides irrigation to the agrarian society. The valley is fragmented into three units: Upper Hunza, which comprises of Gulmit, Passu and Sost, which is the last town before the Chinese province, Central Hunza, which includes Altit and Karimabad, which is a historical and cultural hub of Hunza, and finally the Lower Part which covers Nasirabad and Murtazabad (Kreutzmann, 2006). Figure 5.2 demonstrates the geological location of Hunza within

Pakistan and how it connects closely to China.



Figure 5.2 Location of Hunza within Pakistan's Geopolitical Context. (Prepared by Author)

History

The history of Hunza Valley traces back to approximately 2000 BC. when it was first populated essentially by Rock-art people. Known as the Tibetans, they were a tribe famous for hunting and gathering. Their existence was evident by the petroglyphs abandoned by them in Passu and various other regions of Gilgit-Baltistan. Down the line, Megalith Builders acquired the area, after immigrating from Chitral and Swat and originated initial mining and irrigation proficiencies.

Thereupon, the advent of Dardic tribe imprinted a historic shift in the analytical and demographic configuration (2000 BC-400 BC). Their mining capabilities were cited and applauded by the Greek historians including Herodotus, Megathenes, and Ptolemy, specifically their expertise in gold mining. Buddhism, along 2nd century AD steadily substituted the original native religion of Hunza valley known as Bon. This new religion thrived under the reign of subsequent rulers. Owing its existence alongside the famous trade route, the Silk Road, it gained the attention of numerous empires namely Scythians, Parthians, Kushans, and Sassanians.

Prospectively being a part of the Gilgit kingdom, Hunza was governed by Patola Shahi Dynasty amidst Medieval period. This dynasty was renowned for its relations with China's Tang dynasty as well as its advocacy for Buddhism (2nd-8th century AD). Being a strategic location, Hunza valley observed governing chaos with various empires including that of Tang, Tibetan and the newly originating Umayyad Caliphate (7th-9th century AD). Nevertheless, the Tibetan Empire endured its sovereignty down to the 9th century and eventually got displaced by the Trakhan dynasty, originated by Turkic people, ruling up to the next ten centuries until the early 19th century AD. The Trakhan dynasty predominantly shaped the political landscape of the valley, where Hunza and Nagar were also declared as separate entities.

In the late 18th century, the people of Hunza gave high regard to their relation with China, and recognized them as their suzerain and believing them to be the most pivotal leaders. Subsequently, after the 19th century, Hunza valley was slipped into British control leading to military operation, until the independence of Pakistan in 1947 where it became an independent princely state. It was later assimilated into the control of Pakistan's government in 1974.

Hunza played a crucial role in connecting South Asia, Central Asia and China due to its historic location at the trade route. Therefore, the cultural interchanges and trade exchanges benefitted exponentially the resulting heritage of the region. The patronage of Buddhism and later Islamic religion reflects the historic, centuries-old religious and cultural revolutions. Additionally, its amalgamation into Pakistan assured its economic hype, where it was given national integrity (Kreutzmann, 2006, 1993; Khan, 2016).

Climate and topography

Hunza Valley is well-reputed for its unordinary topography, landscape and climatic changes. It brings together a unique combination of varying heights with interplay of the surrounding mountains, geographical opportunities and constraints, temperature and precipitation trends. Figure 5.3 showcases Ganish village settlements with clear topographical variations.



Figure 5.3 Ganish Historic Settlement (Destination Pakistan Guide, 2024).

The elevation of Hunza valley starts low and goes up to the height of more than 7800 meters above sea level, resulting in the differing climatic conditions. The valley is surrounded by world's highest mountain peaks with Rakaposhi (7,788 meters) and Ultar Sar (7,388 meters) as its elevated backdrops, the consequence of which is the geography designated by intricately-cut valleys and rugged highlands (see figure 5.4). However, this geography of varying slopes and heights accelerate the chances of challenges which in this case are erosion and land-sliding.

With the rise and fall of Hunza's altitudes, the temperature and seasonal changes affect the region more actively, with lower altitudes facing warmer climates and higher altitudes relatively milder in summers and colder temperatures all over the region in the winters. Temperature variations rise up to 35.9°C at maximum and getting lowest down to the freezing point.

In addition to temperate variations, another thing altered and shaped by the region's elevation and topography is the precipitation patterns. Identical to the temperatures, this also varies with varying spatial contexts, such as spaces at a greater height collect more precipitation (snow and rainfall) than the areas at lower gradients. Eventually, due to higher precipitation levels in the snow season, the Hunza river is fed more to the presence of glaciers. Winters in Hunza valley tend to be dry, whilst summer months are packed with rainfall resulting in monsoon weather. The average rainfall in the area is up to 136mm.

These severe climatic conditions, varying heights and landscapes bring ahead several challenges being landslides, seismic activity and flooding. Since Hunza valley is located in a seismic region, it is well-acquainted with seasonal earthquakes stimulating flood outbursts, chaos in the natural topography and landslides impacting infrastructure decline and safety hazards as well. In addition to this, sharp gradients and precipitation lead to the hazards of land-sliding, which disturbs locals, transportation, and, infrastructural developments. Moreover, due to meltdown of the glaciers in summers, the Hunza River overflows triggering floods in the region (Rehman, 2020).



Figure 5.4 Satellite Map of Hunza showing key settlements and Karakoram Highway. (Google Earth, 2024)

Accessibility

Evolved as a secluded and confined historic mountainous valley and located at the foothills of Karakoram and Hindukush, Hunza valley opened new customs of accessibility with the opening of Karakoram Highway in 1986. The accessibility and economic development being the consequence of this transportation infrastructure, has exponentially benefitted linking the isolated region with different parts of the country and even other countries in this case. Figure 5.5 is a map highlighting the distance of Hunza from Islamabad, the capital city of Pakistan.

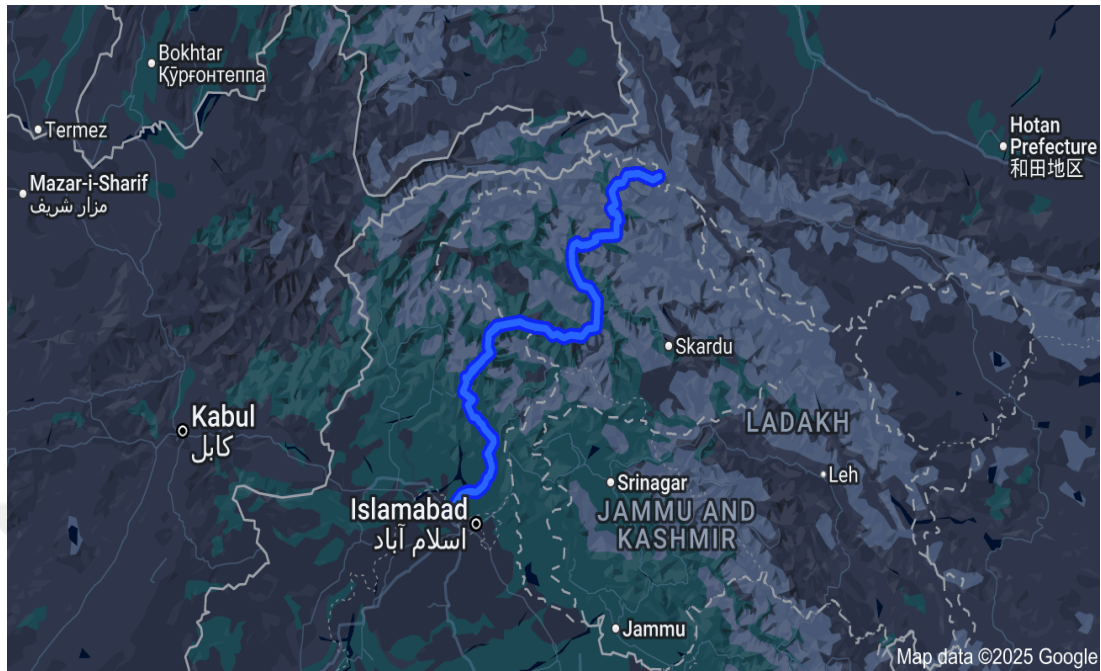


Figure 5.5 Distance of Hunza from Pakistan's Capital City, Islamabad. (Google maps, 2024)

Since the accessibility constraints to link Hunza Valley with nearby areas were unavoidable, the construction of Karakoram Highway paved its way towards improved connectivity with even faraway areas and making possible the easy movement of people and goods throughout the year. Karakoram Highway is one among the highest paved international roads in the world directly connecting Pakistan with China via Khunjerab Pass whose height rises up to more than 4000 meters. Not only does it connect with China but with the other areas of Gilgit Baltistan, and Islamabad which creates more opportunities for enhanced trade and local tourism. With this amplified accessibility, the valley also added its name into the greater economic and transportation framework i.e. National Transport Networks. Furthermore, the general connectivity of the locals with healthcare facilities, educational systems and markets in the bigger urban context became more feasible. Figure 5.6 shows Hunza connectivity with Karakoram Highway and regional roads that have resulted in its improved accessibility.

Although the principal passage of accessibility to the valley is Karakoram Highway, but local transportation options also take a lead role in providing access inside the region. These options include personal vehicles, vans, mini buses, taxis running

between different districts of Gilgit Baltistan, and private tourism-operated jeep services and rental cars for growing tourism needs.

Regardless of the transport system, due to the change in climate and temperatures, the valley faces challenges like landslides, road closures, floods due to glacier water, and seismic activity. With snow downpour and glacial meltdowns, it becomes strenuous to reach nearby areas, and disturb main and capillary roads, bridges, damaging the overall transportation framework. Attabad landslide disaster in 2010 was one crucial incident which gave birth to Attabad Lake which abandoned the use of usual transport options being replaced by boats as a makeshift option until the construction of new bypass roads and tunnels in 2015.

Nonetheless, numerous transportation infrastructure projects have been started to better the accessibility experience including the China-Pakistan Economic Corridor (CPEC) as an extension of Karakoram Highway, more tunnel and bridge developments surpassing Attabad Lake, and lastly the presence of Skardu (city in Gilgit Baltistan) airport makes the whole experience worthwhile (Kreutzmann, 2006).



Figure 5.6 Accessibility Map of Hunza highlighting Karakoram Highway and Regional Roads.

(Prepared by Author)

Flora and Fauna

The ecologically-rich valley has a diversified range of flora and fauna supported by the existence of strategic landscapes, low-lying rivers and hefty mountain peaks. It adds up to the overall bionetwork of the Karakoram and Himalayan Mountain ranges.

By virtue of its seasonal climatic patterns, temperature activity and interplay of heights, Hunza Valley is distinct with its cold desert habitats, alpine meadows, and sub-alpine forests breeding an assorted range of flora and fauna. The local vegetation benefitting from the heightened meadows range from medicinal plants, wildflowers and occasional alpine plants. Similarly, the sub-alpine region is subjugated by Juniper and Birch forests inhabiting a variety of herbivores and bird kinds. Apart from them, Hunza valley is well-reputed for its fresh fruit produce bearing apricots, walnuts, peaches and apples serving locals, tourists as well as wildlife.

Hunza Valley hosting a mix of low and high altitudes is also home to several animal species, for example, Snow leopards, Marco Polo Sheep, Himalayan Ibex, Brown Bears and Lynxes, Golden Eagles, Bearded Vultures, and Himalayan Monals (rainbow-colored bird). All the listed birds and animals are rare species and endangered predators and preys. The Himalayan Ibex is a tough mountain goat that travels on rocky cliffs of Hunza, whereas the Marco Polo Sheep is a rare wild sheep type, significant for its spiral horns. The Snow Leopards are another example of endangered and rare species inhabiting the heightened zones of Hunza and surviving on wild herbivores. Figure 5.7 presents the famous Himalayan Ibex on the heights of Hunza valley.



Figure 5.7 Himalayan Ibex on Hunza Valley Mountains. (Markhor Safari, 2024).

However, irrespective of the diverse range of flora fauna species, Hunza valley struggles with natural conservation practices, the reason being frequent climatic changes, deforestations, and illegal hunting of rare species. As the demand for fuelwood has increased over time, the region is subjected to deforestation which targets wildlife relying on forest inhabitation. Moreover, the unlawful poaching of rare animals makes them endangered and increasingly rare.

In order to combat these challenges, natural conservation projects like Protected Areas and Community-Based Conservation, Sustainable Ecotourism and Afforestation & Habitat Restoration have been under practice. Wildlife sanctuaries like Khunjerab National Park creates a safe haven for threatened animals. Hunza has been working on promoting ecotourism practices where tourists become part of the natural preservation process. In order to minimize overgrazing, disrupted ecosystems are being restored by cultivation of native trees (Virk, Sheikh, Marwat, 2003).

5.2. SOCIAL ANALYSIS

Local community's origin and migration

Owing the multicultural and multi-ethnic background to its location on the historic trade route, Hunza valley has been home to multiple ethnicities with migrations shaping its culture and demography. Inhabiting a number of civilizations in the past including Indo-Aryans, Persians, Greeks, Tibetans, and Central Asians, the region is immensely impacted in regard to its cultural identity with its ancestral context to be such multifaceted. Regardless of the accumulated influences, Hunza valley has adapted well to the centuries-old customs and its interaction with them.

The ancient migration patterns of Hunza valley reveal a lot about the cultural influences posed on the local community. Being on an elevated and safe location, an agriculturally-rich region and placed on Silk route which connected the historical roots of South Asia, Central Asia and China, it became a central spot for interactions between travelers, traders, and even forceful takeovers. All these reasons became a cumulative reason to shape the cultural landscape and cultural identity of the Hunza valley. The most prominent ethnic and cultural group of Hunza, known as the Burusho tribe, which is believed to have migrated from Indo-European region or Central Asia migrated to the valley due to similar motives.

Shaping the cultural landscape and identity of the Hunza valley, these shifting movements gave rise to numerous dialectical and traditional trends. From the impressions of Tibetans, Central and South Asian communities as well as nearby tribes on the architectural typology, languages, and traditions, it is apparent that the region witnessed their existences. Likewise, China has been huge impact on the region, with the exchange of people, ideas and customs during the time of diplomatic relations formed by Mirs in the Middle Ages.

Similar to the evidences from migration patterns, the genetic studies also reveal unique meltdown of various communities. The genetic research unveils the traces of Indo-European, Indo-Aryan, Tibetan, Central, South, and East Asian even Middle Eastern roots reflecting the ancestral migrations and backgrounds of the local

community of Hunza. In addition to these facts, another fact that these studies bring forward is the extended period of interactions between these tribes resulting in the diversity of backgrounds.

Shaped by the diverse ancestral roots, the cultural adaptation has been ongoing since centuries. The amalgamation of indigenous identities and customs mixed with the interactions from outer world created a unique blend of traditions such as in music, cuisine, social relations, and lifestyles. Additionally, the religious beliefs have also been greatly adapted. From spiritually being connected to the Bon religion, then adapting to Tibetan Buddhism, to the Islamic impressions with the arrival of Ismaili people, Hunza valley has witnessed religious variety simultaneously.

Apart from linguistic, traditional, genetic indications, Hunza's architecture has also been adapted by the cultural exchanges. The prime example of this are the historic Altit and Baltit forts that accommodated the then rulers of Hunza, reflecting Tibetan, Central Asian and Persian architectural admixtures (Kreutzmann, 2006).

Language

Similar to racial and traditional exchange, Hunza valley also hosts a mix of languages defining its cultural ensemble. Bestowing to the heritage of the region, there are three common languages found in the valley, Burushaski, Wakhi and Shina.

The Burushaski language, spoken in the central Hunza region, is considered to have no demonstrable genetic link with any other language, making it distinct over other languages. Known as the first language of Burusho tribe inhabiting the valleys of Hunza, Nagar and Yasin, it is commonly practiced as a daily communication tool. The Burushaski language does have a variance in dialects depending on the region its spoken in. However, regardless of being a language isolate, genetic evidence shows traces of historical cultural interchange. With the union of local speakers and language experts, the language has been documented to gather its vocabulary, grammar and oral traditions so as to inform the upcoming generations for educational pursuits.

The Wakhi language is known and spoken in Hunza's upper regions predominantly in the Gojal district. Dissimilar to Burushaski, Wakhi language is originated from

eastern Iranian branch of Indo-European languages, vocalized by Wakhi people who immigrated from Wakhan. Because of marriages and trade exchange, the language has adopted words from the languages of neighboring regions making it notable from Wakhi spoken in other regions. Efforts are made to evolve the language in written form making Arabic, Cyrillic and Latin transcripts in use, since it is majorly present in oral form only. The Wakhi Tajik Cultural Association (WTCA) is another significant and key project to revolutionize the language and educate younger generations to get familiarized by their language heritage. This done by arranging festivals that glorify the oral history and poetry of the language. However, due to lesser participation from local women, the gaps in the efforts of spreading the language exist as well.

The language practiced in the lower regions of Hunza valley is Shina. It is a Dardic language and is familiarized in a number of other valleys in Gilgit Baltistan. Dialectal changes are also present in this language, being different from the ones spoken in other regions, pointing towards the dialectal development. For example, the version spoken in Mayoon village varies from other versions of the language (Kreutzmann, 2006).

Religion

As a consequence of huge periods of migrations, trades, and cultural exchange and evolution, Hunza has been accustomed to several religions and ethnic diversities. The first indigenous religion brought to Hunza valley was known as Bon, which is native Tibetan religion similar to Tibetan's Buddhism. Since the religion was very much inspired by Buddhism, it soon got replaced by it and remained there for several centuries until Islam reached the region through Ismaili community. Produced by the Buddhist monks as a religious and cultural ritual, several ancient scripts are found on cave rocks, moreover in the 8th century, a Buddha carving along with many small Buddhist figures were found on the rocks as well. Today, Islam is the prevalent religion brought by Ismaili Shia sect. Following the footsteps and direction of Aga Khan, the sect highlights and endorses education, literacy, community service and social relations. These values are the reason of the region's high literacy rate and community values. It is followed by major part of the Hunza valley, while the rest of the region follows Twelver

Shia Islam. Irrespective of these differences, Hunza follows cultural integrity and harmony among different sects. The communities believe in local uplift because of their underlying value systems.

The blend of various ethnic backgrounds and religions has rather developed balance, unity and coherence with the local communities. For example, trade, language exchange and intermarriages between different tribal groups ensure that different customs are intertwined. Moreover, they intermix in the cultural festivals which boosts their cultural morals as well. Overall, Hunza valley is a cohesive mix of different groups living together with harmony. All the collective efforts of togetherness with the community owe their success to the Aga Khan principles prevalent in the region. The Aga Khan Development Network has provided educational and healthcare facilities ensuring better lifestyles of the locals, regardless of their spiritual contexts (Neelis, 2011; Behrendt, 2003).

Cultural traditions and festivals

Cultural Traditions and Festivals are ingrained in Hunza valley's significant history and native practices. There a number of unique festivals and events celebrated in Hunza namely Nowruz, Ginani festival, Thomoshalling and Silk Route festival.

The Nowruz is a Persian event that highlights the Persian New Year and the arrival of spring season. Combined with ritual dance, music, feasts, clothing, the festival reflects hope and new beginnings. On the other hand, the Ginani festival celebrates Harvest and emphasizes contentment over availability of crops and contains feasts made by the very harvest. It involves traditional clothing, music, dance, and creates a sense of thanksgiving, gratitude and community gatherings. Thomoshalling is a unique event where the locals celebrate death of an oppressor leader named Shiri Badat. They come together and immerse themselves by lighting fire, music and dance. It emphasizes the win of good over immoral. Rejoicing the successful and ancient trade route, the Silk Route festival symbolizes its connection with the valley. It hosts cultural dances, music, and traditional crafts. It celebrates the role of Hunza and endorses cultural heritage while attracting tourists. Figure 5.8 is a photograph capturing locals celebrating a festival with local instruments.



Figure 5.8 Local Festival of Hunza Valley. (Nagri, 2016)

Moreover, the other traditional and native activities involve ritual music and dances, making them a prominent part of the cultural identity. They promote folklore and use traditional instruments to engage the audiences. They are also part of Spiritual and Healing rituals, influenced by Shamanistic customs. Along with music and dance, they delve into trance/dreamy states to connect with their holy entities.

Similarly, another very significant part of Hunza's cultural identity and traditions is their expertise in handicrafts. Woven fabrics, pottery, and woodwork are some of the activities that the professional artisans are precisely involved in. The products are not just for display or decorative purposes but also serve practical usage as well as protects and pushes the cultural heritage by showcasing local stories and symbols in their detailed products. Figure 5.9 displays a variety of hand-crafted products showcasing skills of the people.



Figure 5.9 Hunza Valley's Traditional Hnadicrafts. (TripJive, 2024).

Hunza valley's centuries-old cultural events, festivals and traditions not just unites the local community but also gather the attention of national and international tourists. Their traditions are far different from the local traditions celebrated in Pakistan, hence attracting national tourists as well. National and international tourists visit the area to witness the first-hand experience of their unique rituals. This not only grabs tourist attraction but also contribute to improve the economy of the region. During the festive seasons, local businesses thrive including the hospitality sector, which uplifts the community's sense of ownership and encourages them to participate in the development and promotion of cultural tourism and cultural heritage (Kreutzmann, 2006).

Stakeholder and ownership

In shaping Hunza valley's socio-economic framework, local government and their roles as well as tourism initiatives by the community have played their due responsibilities. The predominant figure that has administered Hunza's tourism sector is the federal government while Pakistan Tourism Development Corporation (PTDC) fulfills its responsibility of promoting it and developing the infrastructure. It also runs motel services and facilitates transportation within Hunza valley and throughout Pakistan for easy accessibility and lodging.

The local government structure is based on traditional and modern organizational agendas. Since the region has initially been governed by princely state principles for over nine centuries, the administrative system still has its influences on the law system. Nowadays, resource management and infrastructure and other developmental projects come under the governance of local councils and community organizations who have the decision-making authority. Part of the Aga Khan principles, the Aga Khan Development Network (AKDN) puts strong emphasis on education and social uplift. Along with this, the locals have adopted a collective governance framework, where participation is encouraged. For instance, government organizations interact with non-governmental organizations (NGOs) and execute infrastructure and other developmental initiatives by keeping community's requirements and morals in mind.

Nevertheless, one of the biggest issues in this is the unfair circulation and application of revenue generated by tourism. Irrespective of the huge taxation from tourists and tourism activities, the government lacks in utilizing it to rightful resources which includes not providing due rights to local communities as well as in developing the required tourist infrastructure. Needless to say, this can lead to disturb the local efforts in the development process of heritage and tourism promotion.

As a reaction to this inequality, the locals established frameworks for community-based tourism, whose prime focus was to directly involve the locals with tourism activities and keep the revenue within the local community's control. The Shimshal Nature Trust is one such example where tourist share their native ecological knowledge with the tourists ensuring ecological conservation as well as managing the ecologically-involved tourism activities. The community-based tourism model promotes cultural and natural preservation and sustainable practices within tourists with the help of local accommodations, trekking guidance, participation in cultural festivals and rituals. To minimize migration to urban settings and complete reliance on local crop harvest, the model also provides alternative job opportunities which encourages the locals to stay within Hunza.

The region still has gaps in the development process, regardless of the community based and participatory government approaches. A systematic and standardized

structure for equal and fair sharing of tourism-generated revenue among government and locals is desperately needed to safeguard the available resources for necessary infrastructure development and conservation initiatives. As an increment in tourist numbers, this further necessitates its establishment, and to protect the ecology from deterioration.

This can be combatted by initiating capacity-building and participatory projects between government and locals. With government's support, community-based tourism mechanisms can be improved and sustainable tourism can be promoted that not only preserves the natural setting but also secures cultural integrity (Kreutzmann, 2006).

Current tourism model in hunza valley

The Gilgit-Baltistan Tourism Department is principally in charge of managing tourism in Hunza. It operates in accordance with Pakistan's National Tourism Strategy (2020–2025), which places a strong emphasis on community involvement, sustainable tourism, and cultural preservation (Government of Pakistan, 2020). In order to conserve cultural and ecological qualities, community-based tourism initiatives are actively promoted, frequently under the direction of local groups with assistance from non-governmental organizations. Improvements in waste management infrastructure, internet connection, and solar lighting are recent initiatives under the Hunza Sustainable Development Plan (Hunza Post, 2025). Initiatives run by groups like Islamic Relief Pakistan and KADO have promoted local stewardship, capacity building, and eco-tourism awareness (Hunza News, 2025). Nonetheless, there are still issues with equitable income distribution, environmental regulation, and inclusive stakeholder involvement, which emphasizes the necessity of improved institutional frameworks and public-private collaboration.

5.3. ARCHITECTURAL APPROACH ANALYSIS

Geographical restrictions

The landform and topography of Hunza valley composed of high and low altitude terrains, rivers and lakes, rugged and high mountains is affected by being in an active

seismic area consecutively impacting its architecture and construction activities. The variation in terrain along with earthquake activity and other environmental constraints cause restrictions in the construction techniques and architectural typology of the region.

The intricately-chiseled and narrow valleys and the high mountains as the backdrop together make the terrain of Hunza very interchanging. Lowest at approximately 1700 meters and going as high as approximately 7000 meters, the region's land seems always irregular and undulating. As an aftereffect, the flatland area becomes scarcely available forcing the constructions to be made on slopes. This imposes the use of proficiency in construction methods and techniques that are preserved on the steep gradients and are prone to earthquakes, erosion and landslides as well.

Hunza valley has witnessed several massive earthquakes ranging from magnitude 5 to more than 7.5. The region has observed more than 250 earthquakes since 1990s. This entails that such techniques are used that bear structural integrity and are earthquake-proof. Studies and experts suggest that the use of modern technologies such as reinforced concrete and use of seismic dampers can minimize the effects of seismic activity on architecture.

The limitations caused by unavailability of enough flatlands immensely minimizes the chances of urban development. It often requires to be built on agricultural lands which potentially challenges food security. Urban extension which demands flat area to grow is restricted because of this very reason. Additionally, heavy downpours and high-magnitude earthquakes cause landslides which further triggers the already built structures. Example can be the landslide of Attabad which in turn formed a lake, restricting and displacing several local communities, and blocking and intermixing with Karakoram Highway. Therefore, high expertise is required in not just constructions technology but also in choosing a viable site and the development of infrastructure. With reference to infrastructure development being threatened, the topography of Hunza is also one of the biggest challenges for it. It disturbs the growth of building roads, bridges, pipelines, down to transportation systems and services, necessitating proficient

expert groups to govern and control the complex geography. Figure 5.10 showcases settlements built on sloppy surface amidst the rugged mountains.



Figure 5.10 Karimabad village in the Hunza valley of the Northern areas of Pakistan. (Hussain, 2021)

In response to these geographical restrictions, architecture typology and style of Hunza valley have adjusted as per compulsion. From climatic considerations, resilient designs to use of local materials and techniques and construction on slopes, the region has to submit to all these challenges. Moreover, this supports the idea that Hunza's constructed form and social behaviors are firmly anchored in its environment and is consistent with Carl Sauer's definition of cultural landscape as a product produced by both natural processes and human agency (Sauer, 1925). Due to the variations in temperature and weather conditions during different times of the day, the architecture of Hunza integrates the use of flat roofs to ensure addition of more floors and storage, thick walls for thermal mass and small windows to prevent heat loss. Furthermore, they use traditional local materials like stone, mud and straw, wood along with modern techniques such as Cator Cribbage methods in some cases to combat the geographical

restrictions. These materials and techniques adapt well to the environment and cuts down transportation fees.

Architecture design that is prone to earthquakes is an unnegotiable requirement for the region. Incorporating elements such as base isolators, reinforcement methods and using flexible materials together ensure buildings to be earthquake prone and resilient. Besides, to cater to the scarcity of flatland, they build on slopes by modelling hillsides. This technique proficiently utilizes land-use and lessens the effects of landslides by reinforcing the soil (Rehman, 2020).

Architectural typology and its evolution

Molded by historical guidance, cultural contexts and geography altogether, the architectural typology of Hunza valley including residential design, ancient fortresses and public spaces has well-adapted to its geographical requirement. They symbolize architectural heritage adopted by indigenous culture, traditions, geography and socio-political roots. The man-made environment is a mix of the use of local building materials, traditional building techniques and the protection of heritage structures that have observed many centuries.

Use of locally-sourced materials like mud, straw, stone, wood and the predominant cator and cribbage technique etc. by the community dates back to ancient times. Apart from their resilient and adaptation properties, these materials are picked based on their insulation properties against the changing weather conditions. Using stone for foundations and walls due to its reliability, wood from native trees like poplar and juniper for roofing, structural support, and decorative designs in residential and residential designs is clearly prominent. Likewise, using mud and lime to stick stones and for insulation purposes. The locally-sourced materials and traditional construction methods ensures that architectural adjusts seamlessly with the geography and weather limitations. The method of designing using local materials and use of wood as decorative element and for structural support has been adopted by Tibetan and Central Asian customs, especially timber-framed features that are significant in the local accommodations. In addition, detail-oriented designs of wooden balconies and window

frames is also prominent serving practical and aesthetic functions. Figure 5.11 demonstrates traditional homes of Hunza valley built with stone masonry and wooden posts as a response of seismic activities of the region.

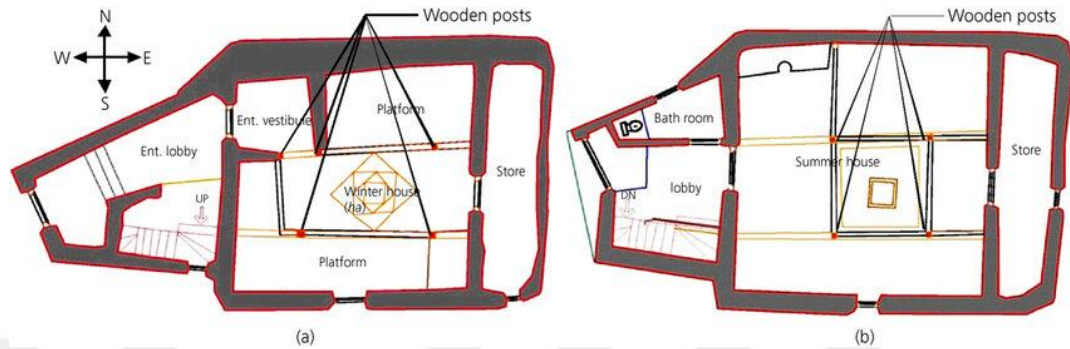


Figure 5.11 Plans of prototype of Hunza: (a) first-storey plan; (b) second-storey plan. (Rafi et al., 2017)

Architecture typology that signifies most with Hunza Valley's built environment are its historic fortresses. They highlight and symbolize the ancient strategic construction as a defensive mechanism against potential rivalries. Built over more than nine centuries ago, Altit fort and Shikari Tower (translates to Hunter tower) is the most documented fortress and tower of Hunza that once accommodated the Mir family. It features multiple floors build of stone walls, narrow staircases, and tactically designed windows for necessary defense requirements. Being the oldest monument in Gilgit Baltistan, the fort gained Asia-Pacific Heritage award by UNESCO in 2011 for Cultural Heritage Preservation (UNESCO, 2011). Figure 5.12 shows the traditional architecture of Hunza depicting Altit fort's famous cator and cribbage technique.



Figure 5.12 Baltit Fort. (Naqoosh-e-Pakistan Architecture History and Heritage of Pakistan, 2024).

Baltit Fort is an added unique architectural marvel influenced by Tibetan architecture. It is secured at an eminent location to have a keen eye on potential enemies and also the trading routes, proving them dominance over other communities as seen in figure 5.13. Moreover, it protected the ruling Mir family from the danger of rivals. Designed on the basis of heightened mountainous geography, it is a strategic layout safeguarding the inhabitants with its defensive features, whereas interconnected chambers and intricately-designed balconies create a sense of function and aesthetics.



Figure 5.13 Baltit Fort. (Alam, 2023).

As part of the value systems of the locals, community relations have an utmost importance. Therefore, local accommodations are designed based on communal living in addition to their functionality. Local residences are designed with central courtyard and consist of several rooms depending on affordability. Homes have shared spaces which accommodates multiple family members and guests altogether. They are built with thick walls, in-built hearth and small windows to maximize warmth inside the houses.

Consequent to the communal values, the settlement patterns in Hunza grew as clustered mechanisms. Making use of the land, the houses were constructed on slopes. These houses are often kept low-heighted and compressed due to the terraced land and earthquake hazards. Likewise, the flat rooftops ensure additional building up of floors, storage, and their traditional styles of drying up of fruits and grains.

Aside from residential layouts and fort architecture, Hunza valley also encompasses communal gathering spaces, mosques and shrines. A village in Hunza district called Ganish, is one of the oldest settlements in the region and hosts four ancient mosques

nearly three to four centuries old. These mosques were also awarded the UNESCO Asia-Pacific Heritage Award for Culture Heritage Conservation in 2002. Besides, 400-year-old Ali Gohar House situated near one of the Shikari towers (used as watchtowers) in the Ganish village was also bestowed with UNESCO Asia-Pacific Awards for Cultural Heritage Conservation in 2009.

Reflecting the local artisan skills, this varying architecture typology preserves its cultural heritage of traditional construction techniques. The design of ancient mosques especially featuring wooden columns and intricate wooden carvings show influence of Islamic and Tibetan architecture.

Irrespective of the efforts to preserve traditional construction techniques, influences from external areas and modern technologies pose a risk to it, with many structures built by concrete buildings. Moreover, the conventional use of Cator and Cribbage is not viable anymore. The Aga Khan program's approach to address constructing upgrades in already-existing homes has been to enhance upkeep, prevention of rain from penetrating flat roofs, attaching wall plates and columns to beams, infilling wall cores, replacing weak stones and installing high-quality pointing, and making use of structural rendering. While the approaches for the new housing is to add foundations that are designed with ground conditions, specifically soil strength, ground and roof-level reinforced concrete ring beams, balance of form and architectural features, and precautions windows and doors positioning.

East of Hunza, in Baltistan, new construction of earthquake-resistant architecture is currently underway, although entirely using traditional methods. Here, just the forts, mosques, and Astana were built using Cator and Cribbage. In local houses, every story and roof of a house were and are supported independently by very big pillars that are first anchored in the ground when the foundations are made and subsequently placed inside the wall's core. A building is jolted to test its functionality before it is occupied (Hughes, 2006).

In order to further preserve them, heritage conservation initiatives like Aga Khan Cultural Service Pakistan (AKCSP) ensures to play their part and protect them. They are

rigorously involved in preserving Altit and Baltit forts while keeping their cultural and architectural integrity and authenticity intact for upcoming generations (Khan, 2018).

Settlement patterns

As described in the previous section, the community settlement patterns in Hunza valley comprised of closely-packed clusters as a result of their historical context, geographical restrictions, and native cultural practices as shown in figure 5.14. However, these have been impacted by topography, safety precautions, modernism, infrastructure development and socio-economic transformations. These developments have modified the region's settlement patterns.



Figure 5.14 Traditional Houses in Hunza Valley, Karimabad, Gilgit-Baltistan, Pakistan. (Wei, 2015).

Previously, traditional villages were built on the basis of communal values and for safety, designed to adopt the limitations given to them by the geography. To prevent houses from falling in the risks of natural disasters like seismic activities, floods, and landslides they were structured on elevated slopes and to also protect them from outsiders.

The Baltit village, famous for being the historic capital of Hunza and its clustered formation, was formed by secure walls and was built on the terraced grounds below the Baltit fort. This design ensured proper safety with compact pathways, strengthened community bonds and was a savior in times of harsh weather conditions. However, the fort itself remained the administrative authority for the Mirs of Hunza. It was built on a height hence providing the necessary defense system. The external rivalry threats, however, minimized over time which led the community to demolish the walls and grow out of the area. Strengthening the community bonds and religious values, several communal areas and mosques were built serving as social and religious center points.

Another reason of the close-packed-ness of the settlements are the area's topography and agro-pastoral activities. Designed at terraces of hillsides, the local accommodations are almost juxtaposed together as seen in figure 5.15. This design strategy makes full use of the cultivable land and hence the irrigation process is well-handled. For example, the clustered Ganish village has several secondary villages which belong to the same community mechanism but have their own individual characteristics, sharing the same resources, food storage, defense frameworks and distributing due responsibilities fairly among each sub-village.



Figure 5.15 Ganish Village Clustered Settlement (Photograph taken by Author)

The juxtaposition of houses with ground floors usually used in inhabitation of livestock, and upper floors for living purposes are mainly built with the concept of agro-pastoral activities. The settlement patterns of these villages revolved around glacial water irrigation networks for securing water required in farming practices. The historic and geographically-adapted technique of terraced structures and agriculture helped the locals in harvesting crops on such gradients. Some houses are still situated close to fruit fields like those of walnuts, apples, apricots, and mulberries adding to the reputation of Hunza's fruit production.

As a result of the region's changing social and economic factors, the settlement patterns have also been modifying. With the opening of Karakoram Highway, the accessibility, urban expansion and development of new settlements adjacent to the highway are observed. This advancement in infrastructure has benefitted trade, social relations and tourism, benefitting the economy consequently. However, un-regularized

planning has resulted in scarcity of resources and accommodation. Moreover, incidents like Attabad landslide caused displacement of communities giving rise to new settlements that were not based on the traditional patterns, changing the settlement dynamics.

As a consequence, the region faced opportunities as well challenges. Economy grew as the villages near Karakoram Highway introduced guesthouses, local accommodations, cafes, and small businesses to serve the tourists. Modern designs for houses were adopted made of reinforced concrete rather than local materials as seen in figure 5.16.



Figure 5.16 Modern Guesthouse in Hunza Valley. (Tripadvisor, 2024)

Infrastructure like making of educational, healthcare facilities, markets have also established. Regardless of this expansion, the challenges regarding loss of traditional architectural techniques, lack of land and resources remain evident (Kreutzmann, 1993).

Traditional vs. contemporary construction techniques

Witnessing revolutions over time, the architectural style of Hunza has evolved and it encompasses mix of traditional and modern construction methods as a result of various reasons described in the aforementioned sections.

Previously, the architecture of Hunza predominantly made use of locally sourced materials and techniques that were their heritage as seen in figure 5.17 and 5.18. Those techniques benefitted them with cost-effectiveness, protection from natural disasters, adjusting to climatic and geographical limitations and ensuring strong community ties. The characteristic stone or mud walls, flat roofs, decorated wooden columns and carvings, small windows and clustered planning safeguarded them from weather conditions.



Figure 5.17 Hunza Valley's Traditional House. (Photograph taken by Author)



Figure 5.18 Traditional Construction Technique of a House in Hunza Valley.

(Photograph taken by Author)

However, there has been a change in this dynamic with the introduction of new materials and technologies, inspiration from other architectural styles and further urban and infrastructure development. Since the locals have been familiarized with materials like concrete, glass, steel etc. they have started using them for structural integrity and design variability. In addition, the local builders, taking inspiration from modern architectural styles have started adding those elements in the designs of local residences. Moreover, accessibility through Karakoram Highway has made contact to new building materials and modern technologies very easier.

In order to preserve the cultural heritage of traditional style of architecture, the government of Pakistan has initiated projects such as Antiquities Act 1975 regarding endorsement of sustainable building methods and preserving heritage areas. Figure 5.19 demonstrates the famous Altit Fort with its preserved identity using mud, thatch, and cator cribbage techniques. Additionally, the gaps between the traditional and contemporary construction techniques have been crossed with the help of firms such as

Aga Khan Planning and Building Service, Pakistan (AKPBS,P). Likewise, efforts related to the traditionally and ecologically safe and sustainable housing have also been initiated by Building and Construction Improvement Program (BACIP).



Figure 5.19 The restored 900-year-old Altit Fort in Hunza, Pakistan. (Safi, 2021)

As the contemporary architectural techniques emerge, sustainability has been the center of focus. Using eco-friendly materials and methods, ensuring proper natural ventilation and air-flow, solar energy optimization, rainwater harvest networks etc. to minimize bad impact on the environment have been the focal point. With Yasmeen Lari (Pakistan's first female architect), introducing the idea of Barefoot Architecture which promotes construction of eco-friendly housing and use of local, inexpensive materials like mud, lime and bamboo. The resultant architecture is earthquake proof, robust and sustainable.

While the contemporary methods assure of durability, they also pose hazards to violation of cultural and architectural heritage as well as to natural landscape and

ecology, hence balance between the traditional and modern techniques is required. To control this evolution, it is essential to engage the community in the construction processes so that the residential needs are fulfilled and cultural value system is preserved. Additionally, regularization of policies regarding building construction is crucial to maintain sustainability. Lastly, comprehensive information centers for the builders, craftsmen and architecture community to learn about heritage conservation, intermix of technologies and sustainable adaptation practices (Hussain, 2015).

Conservation efforts and challenges

The cultural and architectural heritage of Hunza valley is reflected in the centuries-old historic architecture of the forts as well as traditional design layouts of buildings. To preserve this heritage identity of the region, numerous efforts have been initiated through international collaborations, and local participation to combat the hazards of heritage deterioration.

One of the most prominent conservation projects is the Baltit Fort conservation initiative. Currently it is operated as a research center along with tourist destination, but it was made around eight centuries ago and it is from the most significant historic architecture of Hunza valley, also nominated as a World Heritage Site in 2004. Figures 5.20 and 5.21 demonstrate the preservation techniques adopted in the Baltit Fort.



Figure 5.20 Baltit Fort and its Cator Cribbage Preservation Technique. (Government of Gilgit Baltistan, 2021).



Figure 5.21 A Blow-up of the adopted Preservation Technique in Baltit Fort. (Photograph taken by Author)

Following the appropriate procedures under UNESCO criteria, the conservation project led to many other similar conservation efforts. In order to maintain the integrity of its historic ensemble, certain methodologies were carried out to cater to engineering and technical concerns and then structural interventions took place.

The Cator and Cribbage construction method is prominently used in the fort's architecture, so in order to check the reliability of the timber use, several points were considered. The main structure was observed, noting its activity and structural warp was kept integrated to safeguard its historic value, while also doing some upgradations. Adjustments were done only at the areas of extreme distortion, while optimizing the utility of traditional and contemporary structural systems. At the places of extreme deformation, chemical treatments were done, and at areas of more than 20% showcase of decay cross section, wood was replaced. The replaced wood was ensured to be tested, well-seasoned and old, while also optimizing the removed wood. The community was engaged through the conservation process and their traditional techniques were highlighted. For instance, wood was harvested traditionally at traditional harvest time, simple conservation methods were used that the workers found feasible yet cost-effective. The whole process was also sustainable as the removed or replaced products were used to improve domestic accommodations of the locals.

Numerous challenges were faced at the design phase including balancing the foundation systems that were built over loose glacial soil which was done by omitting a long Cator and adding a new one, removing a part of cribbage column, dealing with a deformed wall without rebuilding it. Another concern was whether to bring together the structure for earthquake safety or not. After these issues were resolved, a different set of concerns arose, that were similar to traditional housing in Hunza valley. The majority of the wall timbers were in excellent shape, and the pegged connections were still functioning properly. In general, the upper surfaces of the cators that served as wall plates for roof beam connections were deteriorating. External cators below and above ground were prone to deteriorate, especially in areas where rain was seeping in. Cators in foundations or in walls buried beneath interior floor surfaces were frequently as fresh as the day they were installed there.

The most degradation was detected in the Cator timbers utilized in the surrounding retaining walls. Pulling out of cators from their sockets only happened where they were part of an additional phase and had been inserted; bowing of walls was most noticeable in the west facade and the builders had attempted to stop the movement at one point by inserting beams with large exposed 'through' pegs, which served as wall tie plates; major wall settlement, up to 400mm along the south façade in areas where the fabric was exposed to high UV light levels and dry winds, grain splitting and surface mulching were performed on exposed wood. Although the timbers were still structurally sound, it was discovered that the degradation was the result of moisture seeping into the wood's core, which opened the door for insect attack. The cators' rounding off on the north facade subsequently made it possible to remove the soil blocks and stones above.

There were just five major structural interventions: Along the South Façade, where the foundations were deep but supported by loose powdered glacial dirt and straw that had been pushed off the roof during a previous construction phase. During wall underpinning, several of the timbers were replaced one at a time after it was discovered that they were decaying. On the loose soils in the southwest corner, the walls only had shallow foundations. Here, the base cators were transformed into spanning beams by building new foundations as cribbage. At the two towers in the southeast, which were discovered to have absolutely no foundations. Both towers were supported by pad footings made of reinforced spread concrete. There were no foundations discovered in the northeastern corner of the fort, and the cators on the bottom were decomposing. Here, an emergency exit door was to be installed and the interior floor was to be lowered. Here, new foundations using traditional walling techniques were established. The west façade was discovered to be 1.2 meters out of plumb, 400 mm broad, and 8.5 meters high. The structure was tied back and the tilt was maintained. The superstructure was hung in the new foundation sites while the new was placed and the deteriorated material was removed. 'Acro props' and/or hydraulic jacks were used to hold the needle beams, which were used to temporarily prop up the existing walls, in order to do this. The motion of the Cator beam made the temporary propping simple.

The occasional use of contemporary structural ties is the lone exception to the rule that traditional conservation techniques should be followed. There was very little structural continuity and elements were observed drifting apart since the structure had at least 60 structural phases, only a few of which were connected. This has helped to limit the amount of damage that foundation settlement has caused in some areas. It was determined to preserve Baltit Fort's ductility to the greatest extent possible due to the area's seismic characteristics and the numerous events that have occurred there. The dearth of information regarding seismic ground motions and the effects of topography modification provided support for this. The southwest tower was preserved as a stand-alone building because of this. Only the roof beams on the uppermost level were attached to the wall plates. This was done in an attempt to provide some continuity in the regular working condition, but in a way that might be interrupted by an earthquake. Timber cators that were properly joined and completely built to operate under tension would have been able to provide an improved long-span continuity throughout the construction.

The following were the issues with this strategy: The scarcity of lengthy, well-seasoned timbers, how challenging it is to insert through the structure, the current cator system's interruptions, the absence of a chance to keep an eye out for any emerging systemic strains. As a result, different approaches were looked for. There was no way to make metal tie rods locally, and they were not available. Although suspension bridge wire rope was available, the local wire has a reputation for severely stretching under prolonged, continuous loads. These factors led to the search for a contemporary substitute known as "Parafil Rope," which is made up of strong Kelvar filaments covered in a resilient polymeric covering. Offshore oil platforms are anchored with it. The Parafil rope, which is thought of as the contemporary equivalent of a cator, is used for the first time in a historic structure at Baltit Fort.

This material has several benefits including long-term durability, very high specifications: little creep, excellent strength, quite portable, anchor fittings are quite simple to install, because of its extremely small diameter (25 mm), it won't interfere with the existing structure and won't be noticeable when placed against ceiling joists.

Long-distance threading through structures is incredibly simple, and it can even bend, etc., detachable and reusable. When heavy engineering work was being done, it was a very useful safety tool because it was installed as a passive part that would only become active if there were large movements in the structure. To create a consistent pattern of backup supports for the west facade—the one with the biggest outward tilt—a number of the ties were placed throughout the structure (Hughes, 2000).

Another significant conservation project which gained international recognition is the Altit Fort Conservation. Honoring its architectural and cultural value, it was privileged to receive the UNESCO Asia-Pacific Heritage Award for Cultural Heritage Conservation in 2011. For fulfilling the responsibility of complying the standardized international conservation laws and advertising the idea of heritage conservation, the project's endeavors were applauded by the judges. It was complimented on its restoration efforts, with reinforcing the construction along with revitalizing the use of traditional techniques. Therefore, it can act as a key to other such restoration drives.

This massive restoration project, with the support of locals and government of Norway was launched by the Aga Khan Trust for Culture (AKTC). With an ambition to secure the fort's cultural and architectural integrity, it was ensured to support its social and economic growth. The whole concept behind the restoration drive was the adoption of authentic traditional materials and methods in coherence with the indigenous construction techniques. It also fostered the native cultural heritage of local expertise and artistry by providing new job opportunities and training the interested communities. The Altit Fort serves as a cultural heritage museum at present portraying the crafts, wisdom, and lifestyles of the predecessors of Hunza valley.

Similar to the restoration drive of Altit Fort, the famous Khaplu Palace open to tourists to delve into Hunza's history and architecture was reinstated and now operates as a lodging house. This way not only heritage is preserved but it serves as an economy booster for the locals creating employment for them.

Irrespective of these initiatives, the preservation process deals with a handful of trials including harsh weather conditions i.e. varying temperature gradients, earthquake risks etc., resource scarcity, harmonizing traditional and modern technologies, and capacity

building. The environmental challenges inflict hazards to structural resilience and necessitate the use of practical techniques to cancel the risks. Additionally, regardless of international support, sustainable economic efforts are needed to secure the resources needed for the projects. On the other side, capacity building i.e. training the craftsmen, artisans and the related workforce with the techniques of preservation of heritage sites is crucial to engage the community. The community engagement is essential to harmonize the modernization with traditional and cultural customs to maintain the architectural image and authentication of the heritage (Khan, 2018).

Current world heritage conservation model in hunza valley

Hunza's conservation efforts, especially at Baltit Fort, which has been on UNESCO's tentative list since 2004, are primarily led by the Aga Khan Historic Cities Programme (AKHCP) of the Aga Khan Trust for Culture (AKTC), which uses community-led approaches and globally accepted conservation principles (UNESCO, 2004). The site was turned into a museum run by the Baltit Heritage Trust after restoration work between 1989 and 1996 included structural stabilization, the reuse of traditional materials like timber through Cator and Cribbage techniques, and minimal intervention to preserve historical integrity (Hughes & Lefort, n.d.). The creation of Town Management Societies, which are in charge of zoning, infrastructure planning, heritage promotion, and financial sustainability through tourism and local business, was one of the post-restoration measures (Aga Khan Trust for Culture [AKTC]). These projects, which received several UNESCO Asia-Pacific Heritage Awards for excellence in sustainable conservation techniques, strengthened community involvement, cultural education, and income generation at Altit Fort, Khaplu Palace, and Ganish Village (AKTC, n.d.).

The distinctive geographical location and deeply ingrained social customs of the Hunza Valley directly contribute to its architectural identity. In addition to dictating the use of locally accessible materials like stone and timber, the region's rugged climate, seismic sensitivity, and steep geography have influenced robust construction methods and compact settlement patterns. Similarly, the communal features, orientation, and

spatial arrangement of traditional architecture have been greatly impacted by the cultural values of the community, which are represented in their shared religious beliefs, social harmony, and seasonal festivities. By encouraging a continuation of regional craftsmanship and vernacular knowledge passed down through the years, migration patterns, language, and social structures have further enhanced Hunza's architectural character. Therefore, Hunza's architectural answer is a cultural statement based on social cohesiveness and environmental adaptability rather than just a utilitarian result. Understanding Hunza's cultural landscape via an architectural lens is based on this interwoven interaction between the physical, social, and architectural elements, which emphasizes the necessity of preservation strategies that honor the region's natural environment and sociocultural core.

Figure 5.22 displays the connection between Hunza Valley's physical setting and social traditions resulting in its unique vernacular architecture which defines its characteristic cultural landscape identity.

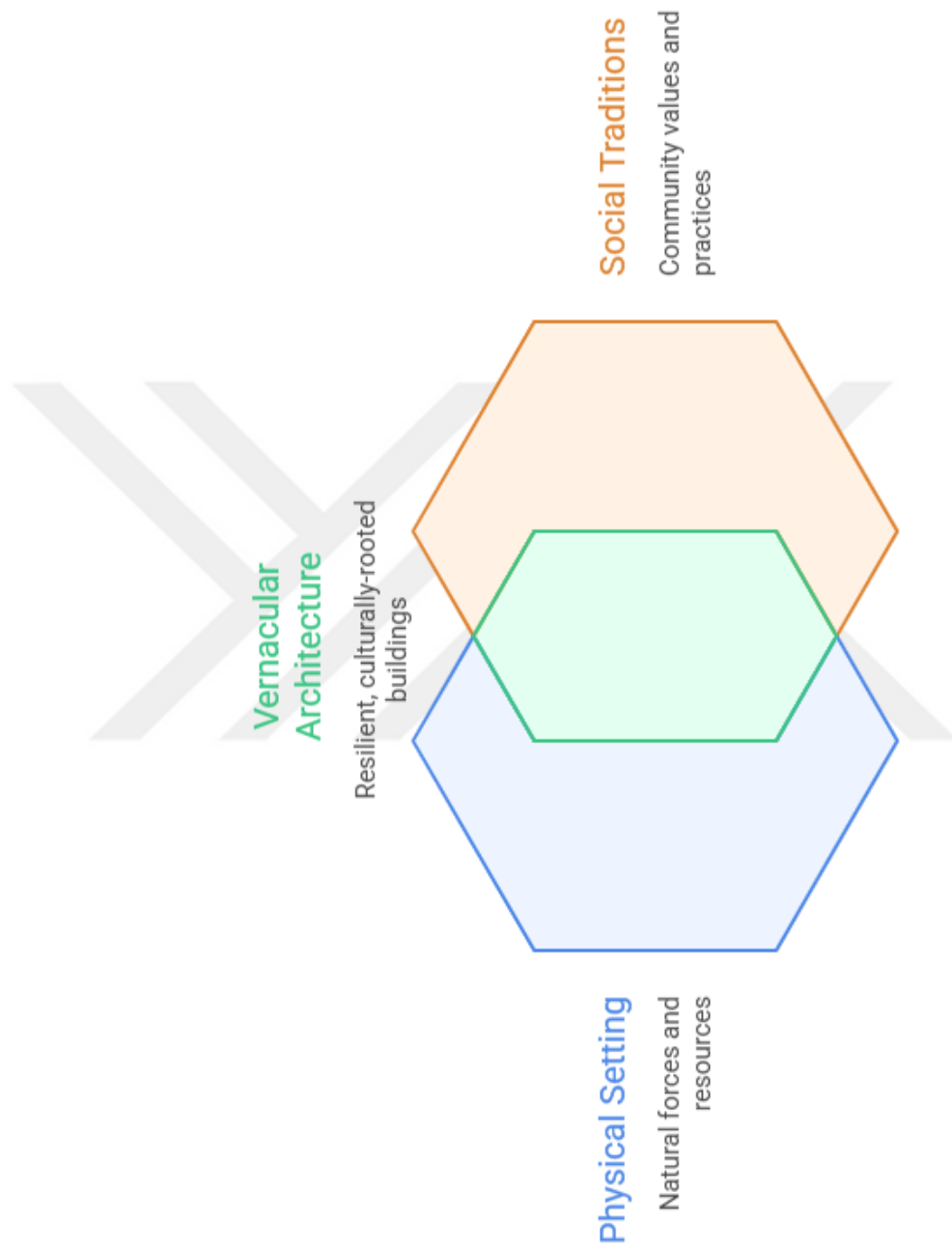


Figure 5.22 Link Between Hunza's Physical, Social and Architectural Identity (Prepared by Author)

CHAPTER 6

PRIMARY RESEARCH, ANALYSIS AND FINDINGS

In this chapter, research findings gathered from questionnaire surveys from the three target groups: locals, tourists and experts are presented along with their analyses. For the ease of comprehension, the research is divided into six main variables. Questions are prepared for each category first and then refined to connect to the main research objectives.

6.1. VARIABLE 1: CURRENT CULTURAL TOURISM

Based on the statistical analysis, the current situation of tourism sector in Hunza Valley that affects its economy has both strengths and weaknesses. According to the local community of Hunza Valley, boosted economy, and job opportunities are the highest strengths of the tourism sector, followed by improved social interaction with tourists (see figure 6.1) and they are strongly correlated at 0.795 (see figure 6.2). This means tourism is positively affecting these aspects. Whereas, the experts believe that along with these three aspects, unique cultural and natural landscape is another strength (see figure 6.3). However, according to the experts, these strengths are not correlated inducing that they are positively impacted by cultural tourism but are not inter-dependent on each other.



Figure 6.1 Strengths of Cultural Tourism in Locals' Perspective

Correlations

			Boosted economy (as a strength of cultural tourism)	Job Opportunities (as a strength of cultural tourism)	Improved social interaction (as a strength of cultural tourism)
Spearman's rho	Boosted economy (as a strength of cultural tourism)	Correlation Coefficient	1.000	.795**	.549**
		Sig. (2-tailed)	.	<.001	<.001
		N	40	40	40
	Job Opportunities (as a strength of cultural tourism)	Correlation Coefficient	.795**	1.000	.530**
		Sig. (2-tailed)	<.001	.	<.001
		N	40	40	40
	Improved social interaction (as a strength of cultural tourism)	Correlation Coefficient	.549**	.530**	1.000
		Sig. (2-tailed)	<.001	<.001	.
		N	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 6.2 Correlations of Strengths of Cultural Tourism in Locals' Perspective



Figure 6.3 Strengths of Cultural Tourism in Experts' Perspective

Moreover, Locals consider lack of government attention and promotion as the weakest aspects of cultural tourism in Hunza (see figure 6.4) whereas they view overcrowded spaces and historic site deterioration as inter-connected weaknesses of cultural tourism with correlation coefficient of 0.839, meaning that they strongly affect each other (see figure 6.5).

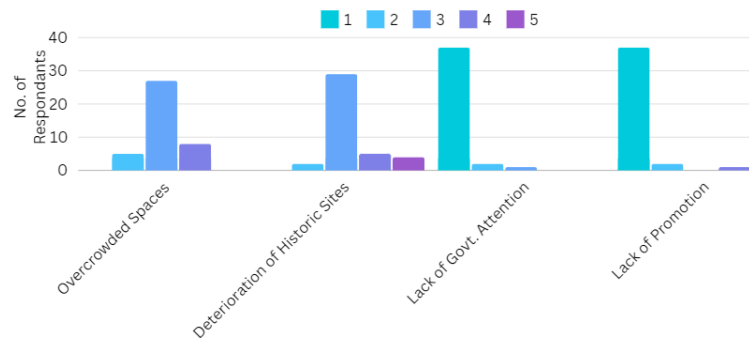


Figure 6.4 Weaknesses of Cultural Tourism in Locals' Perspective

Correlations						
			Overcrowded spaces (as a weakness of cultural tourism)	deterioration of historic sites (as a weakness of cultural tourism)	lack of govt. attention (as a weakness of cultural tourism)	lack of promotion (as a weakness of cultural tourism)
Spearman's rho	Overcrowded spaces (as a weakness of cultural tourism)	Correlation Coefficient	1.000	.839**	-.042	.138
		Sig. (2-tailed)	.	<.001	.796	.396
		N	40	40	40	40
	deterioration of historic sites (as a weakness of cultural tourism)	Correlation Coefficient	.839**	1.000	-.061	.077
		Sig. (2-tailed)	<.001	.	.709	.637
		N	40	40	40	40
	lack of govt. attention (as a weakness of cultural tourism)	Correlation Coefficient	-.042	-.061	1.000	.261
		Sig. (2-tailed)	.796	.709	.	.104
		N	40	40	40	40
	lack of promotion (as a weakness of cultural tourism)	Correlation Coefficient	.138	.077	.261	1.000
		Sig. (2-tailed)	.396	.637	.104	.
		N	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 6.5 Correlations of Weaknesses of Cultural Tourism in Locals' Perspective

Experts also view lack of government attention as the weakest aspect of cultural tourism in Hunza. They are also certain that over-crowded spaces are linked with deterioration of historic sites and this deterioration is linked with lack of government attention, while adding lack of promotion, lack of regularization, unplanned and haphazard development (see figures 6.6 and 6.7)

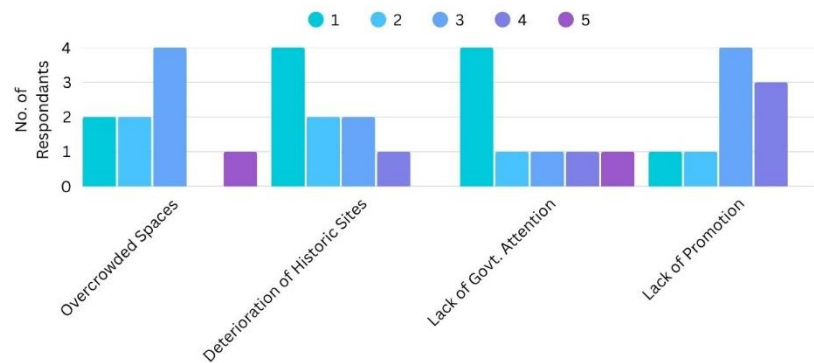


Figure 6.6 Weaknesses of Cultural Tourism in Experts' Perspective

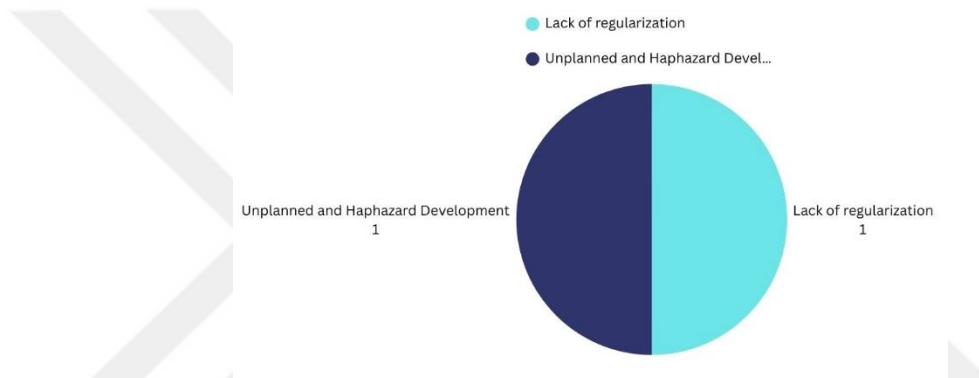


Figure 6.7 Additional Weaknesses of Cultural Tourism in Experts' Perspective

Therefore, the growth of cultural tourism leads to economic benefits such as boosted economy, job opportunities and exposure to unique cultural and natural landscape. Additionally, over-crowding at historic sites, infrastructure and environmental degradation have been witnessed as a challenge in result of tourism in Hunza Valley, in addition to lack of government attention and promotion etc.

6.2. VARIABLE 2: GEOGRAPHICAL FACTORS

According to the locals, cultural practices, architecture, lifestyle, tourism serve as opportunities due to the geographical factors of the region, with tourism being the biggest opportunity as seen in figure 6.8. Whereas, some of them identify lifestyle, accessibility to services and environmental factors as severe limitations and half of them

see slight limitations caused in construction, cultural practices, and lifestyle as shown in figure 6.9.

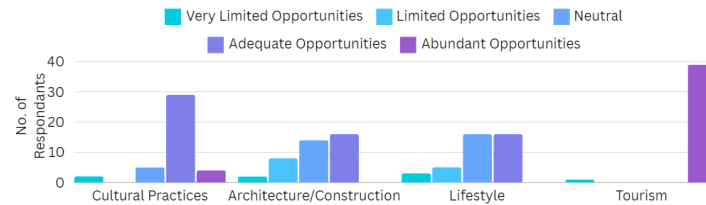


Figure 6.8 Geographical Opportunities in Locals' Perspective

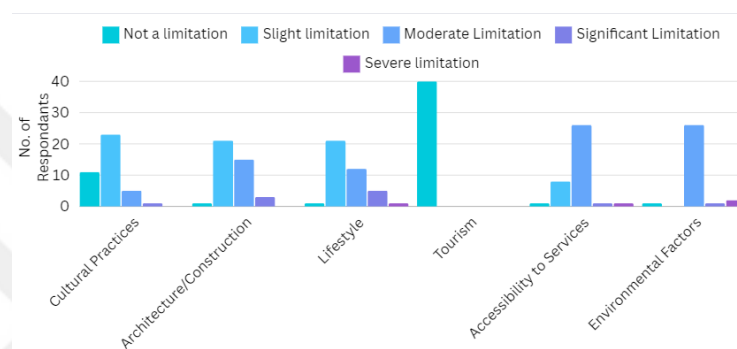


Figure 6.9 Geographical Limitations in Locals' Perspective

In contrast, Experts point out technical and deep connections of geographical factors on the region. They determine earthquakes, mountains, rivers/lakes and terraced plains have major to pivotal influence as geographical opportunities that shape Hunza's architecture and cultural practices. They also highlight these aspects as a minor to moderate geographical limitation in shaping them (see figures 6.10 and 6.11).

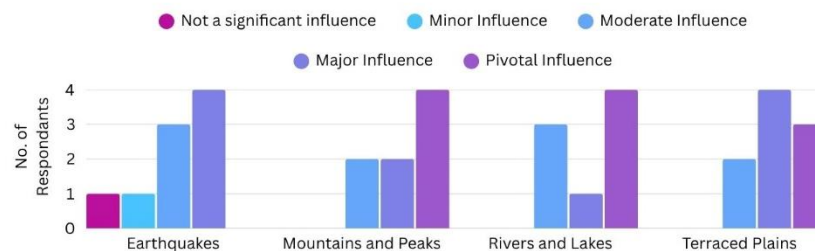


Figure 6.10 Geographical Opportunities in Experts' Perspective

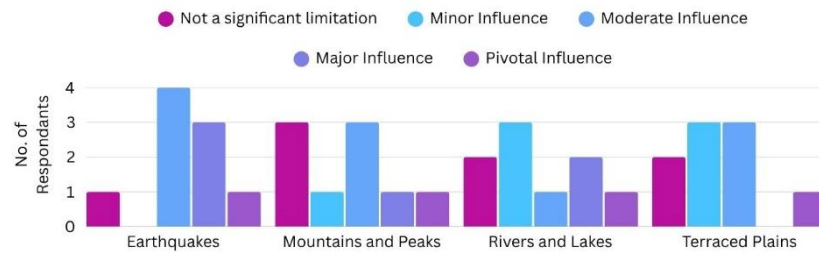


Figure 6.11 Geographical Limitations in Experts' Perspective

These aspects are seen as opportunities and limitations based on their multidisciplinary characteristics. For instance, as Hunza is susceptible to earthquakes, its construction practices require resilient techniques to withstand them which serves as an opportunity for the locals to showcase their building expertise, whereas it also poses continuous risk to the protection of historic buildings serving as a geographic limitation. Alternatively, terraced fields depict the community's adaptive agricultural practices while also being tourist attraction, however, they require continuous maintenance to avoid erosion. In a similar way, as much as mountains add to the beauty of the region and provide adventure opportunities, they also cause building limitations due to flatland unavailability as well as accessibility challenges. Additionally, experts point out that these geographical factors impact the region's architectural typology in terms of construction and preservation techniques, selection of building materials, construction of bridges and pathways as well as physical layout of houses and streets. They also affect cultural practices in terms of settlement patterns, use of traditional clothing, cuisine and agricultural practices as illustrated in figures 6.12 And 6.13.

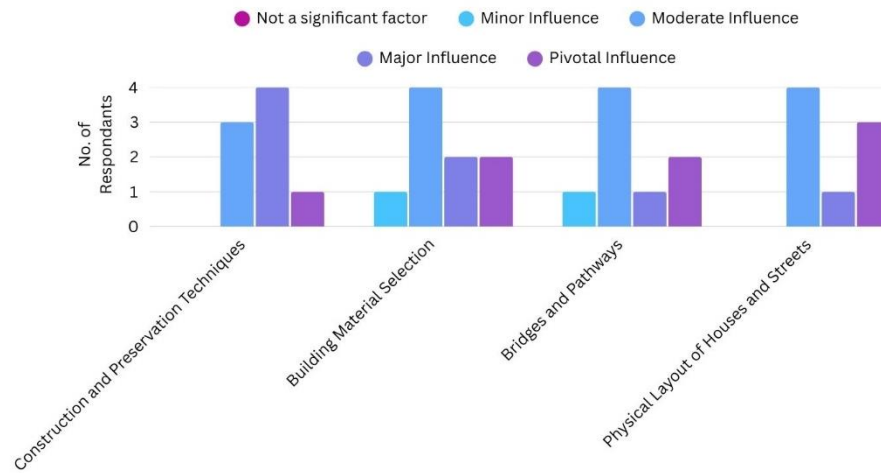


Figure 6.12 Architectural Typology Influenced by Geography

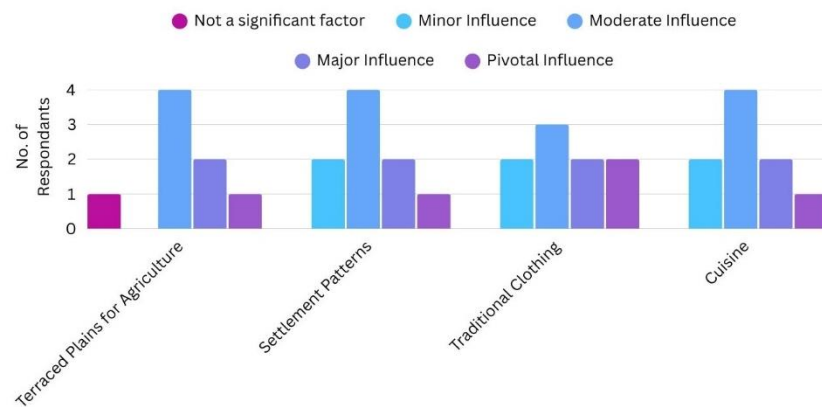


Figure 6.13 Cultural Practices Influenced by Geography

Tourists seem to be fascinated by Hunza's natural landscape and the environment and adventure opportunities it provides. They highlight these geographical factors to be their prime reason of visiting Hunza where majority of them spend between 25000 to 50000 Pakistani Rupees (PKR) as identified in figures 6.14 and 6.15.



Figure 6.15 Geographical Attractions Influential for Tourists in Visiting Hunza

Most of them recognize architectural styles and techniques such as stone architecture, fortresses/watchtowers, bridges/pathways and physical layout of houses/streets to be extremely related to Hunza's geography, while half of them also identify mosques and religious structures and wooden carvings as extremely related as seen in figure 6.16. Additionally, they believe the cultural practices such as agricultural practices, clothing styles, cuisine and physical layout of houses/streets also to be extremely related to the region's geography as depicted in figure 6.17.

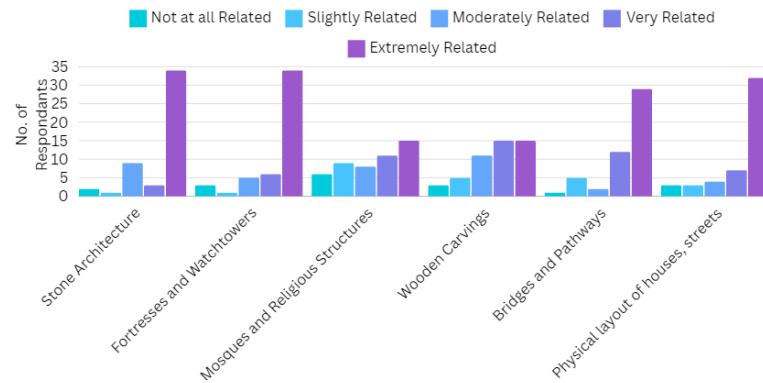


Figure 6.16 Architectural Techniques Related to Geography in Tourists' Perspective

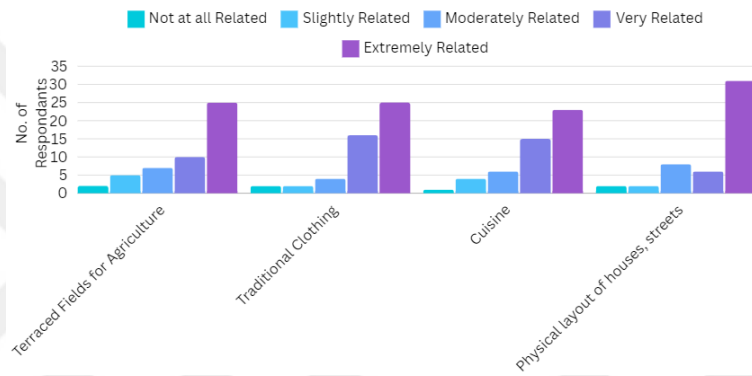


Figure 6.17 Cultural Practices Related to Geography in Tourists' Perspective

Tourists also point out the accessibility challenges faced by them due to the distinctive topography of Hunza. These challenges include landslides to be 62.8% followed by unmaintained roads, lack of rest stops, and broken bridge (see figure 6.18). They recommend multiple suggestions to improve the overall tourist infrastructure such as road maintenance, well-designed rest stops and toilets, infrastructure development, alternative transport options, and government involvement (see figure 6.19). These suggestions combine the viewpoints of national and international tourists.

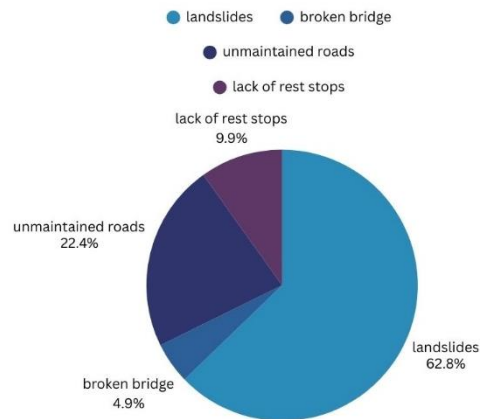


Figure 6.18 Accessibility Challenges Witnessed By Tourists

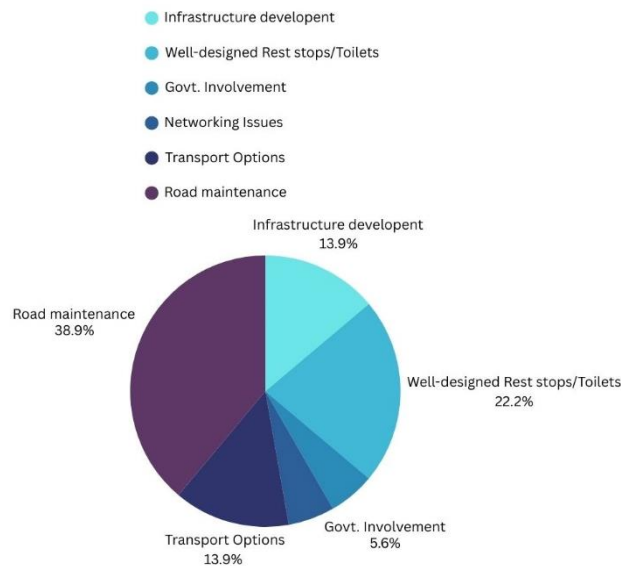


Figure 6.19 Tourists' Recommended Improvements for Accessibility

It is also evident from the viewpoints of locals, tourists and experts that overall cultural landscape involving cultural practices, architecture, lifestyles, etc. are impacted in different ways by the geography of the region and hence they are shaped by them.

6.3. VARIABLE 3: ESTABLISHMENT OF KARAKORAM HIGHWAY

92.5% of locals believe that the opening of Karakoram Highway (KKH) has resulted in growth of tourism, highly impacting their daily lives by boosting their economy,

providing job opportunities and improving social interactions with tourists. However, the effect of over-crowded spaces and loss of place identity as a result of tourist numbers is to the least as shown in figures 6.20 and 6.21.

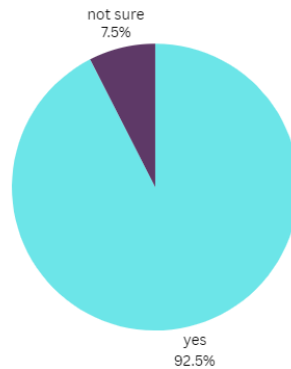


Figure 6.20 Locals' Opinion on Tourist Influx due to Karakoram Highway

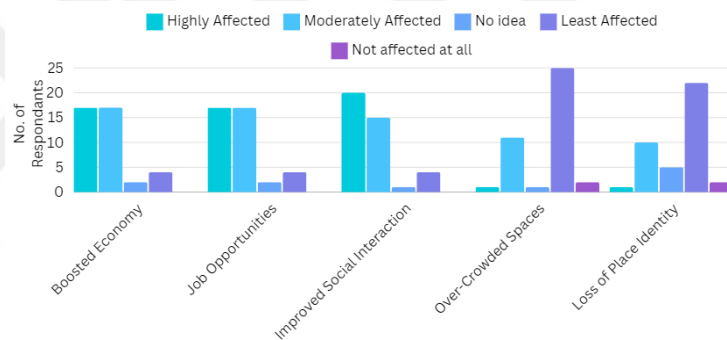


Figure 6.21 Aspects Affecting Lives of Locals' Due to Increased Tourism

The establishment of Karakoram Highway has increased tourist influx as tourists and experts consider it one of the major reasons of travelling to Hunza due to its accessibility or connectivity. Tourists report a range of benefits due to the Karakoram Highway's accessibility, with the most common being scenic views, time management, and adventure opportunities. Additional benefits include wildlife observation, and, diversity of terrain, reflecting the diverse experiences the Karakoram Highway enables (see figure 6.22).

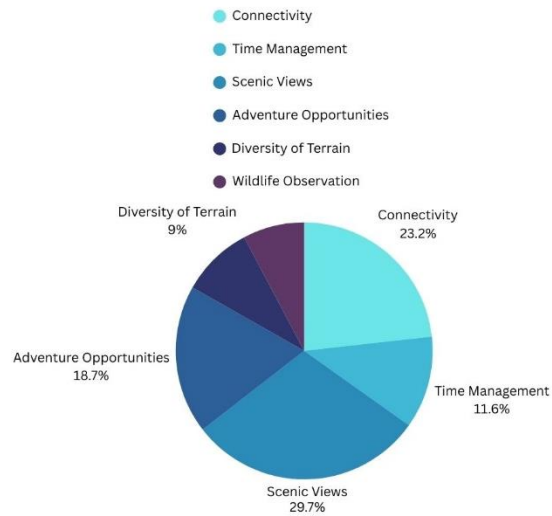


Figure 6.22 Tourists' Witnessed Benefits of Karakoram Highway's Accessibility

Experts believe the Karakoram Highway influences accessibility, global reputation, economic growth, and infrastructure development (see figure 6.23). Moreover, challenges reported by experts due to the opening of Karakoram Highway include infrastructure deterioration having moderate impact, over-crowded heritage spaces having significant impact, environmental degradation having exceptional impact and traffic management having minimal impact (see figure 6.24).

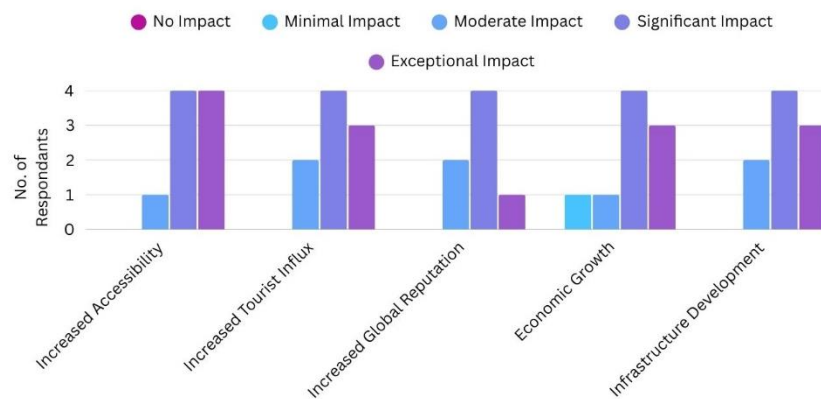


Figure 6.23 Experts' Witnessed Benefits of Karakoram Highway

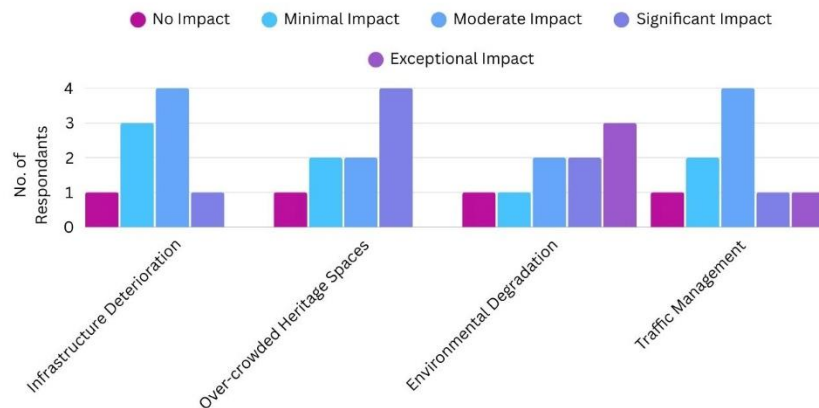


Figure 6.24 Experts' Witnessed Challenges of Karakoram Highway

According to Butler's Tourism Area Life Cycle Model (Butler 1980), Hunza moves from the "exploration" to the "development" stages with the opening of the KKH. However, unless sustainable management techniques are put in place, the present issues may signal an impending stagnation phase.

6.4. VARIABLE 4: ARCHITECTURE RETENTION

Locals emphasize that the techniques and construction methods of Cator and Cribbage Construction, Stone Masonry, Mud and Straw Construction, and Wooden Tracery provide resilience and contribute extremely in a seismic zone as well as in identifying Hunza's cultural heritage. They also believe that this blend of traditional materials and techniques, rooted in local practices together enhance stability and are the backbone of seismic resilience (see figures 6.25 and 6.26).

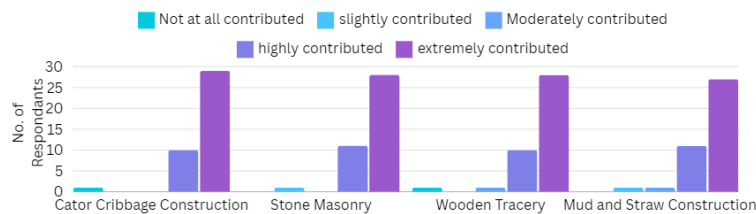


Figure 6.25 Locals' Opinion on Architectural Techniques' Contribution in Hunza's Cultural Heritage

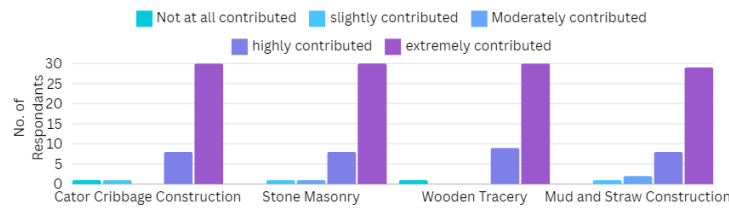


Figure 6.26 Locals' Opinion on Architectural Techniques' Contribution in Hunza's Stability in Seismic Zone

Similarly, experts see traditional materials like Stone and Wood Construction, Masonry Techniques, Low-Profile Structures, foundations, Orientational Alignment of buildings with natural terrain, Community Construction Practices and Contemporary Seismic Retrofitting having high retention properties in the region's vulnerability to earthquakes as shown in figure 6.27.

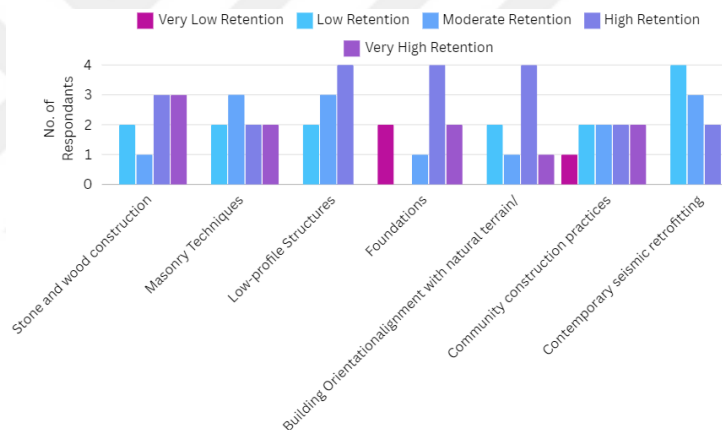


Figure 6.27 Experts' Opinion on Architectural Techniques' Contribution in Hunza's Stability in Seismic Zone

Experts' focus on earthquake-resistant elements, such as durable foundations, low-profile structural forms, and orientation with respect to natural slopes, is consistent with academic philosophy of vernacular architecture, specifically Amos Rapoport's contention that traditional architecture changes in direct reaction to cultural demands, materials, and environment as an environmental adaptation strategy (Rapoport, 1969). Feilden's concept of compatible and context-sensitive conservation, which emphasizes adjusting structures to environmental realities while preserving authenticity, is also in

line with experts' emphasis on seismic-responsive construction techniques (Feilden, 2003).

In terms of the attributes of architectural heritage and the way they determine Hunza's architectural and cultural identity, locals recognize historical continuity, cultural aspects, symbolism, local construction and preservation techniques, local place identity, adaptation to environment, and cultural exchange as highly to extremely contributing. Tourists also view them similarly except cultural exchange. This highlights potential gap in the proper transmission of culture to the tourists (see figures 6.28 and 6.29).



Figure 6.28 Locals' Opinion on Architectural Heritage Attributes' Contribution to Preserve Hunza's Cultural Identity

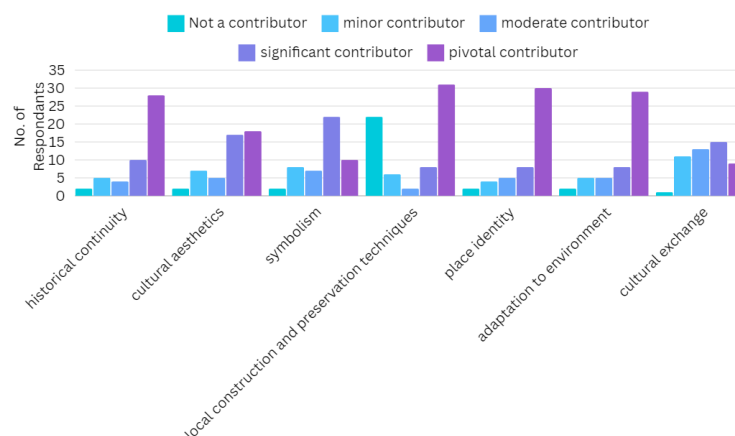


Figure 6.29 Tourists' Opinion on Architectural Heritage Attributes' Contribution to Preserve Hunza's Cultural Identity

6.5. VARIABLE 5: COMMUNITY ENGAGEMENT

The level of engagement of the local community in the development process is very moderate, with majority of them not engaged in any of the activities such as education and awareness, volunteerism, partnerships/collaborations, cultural events/festivals, heritage tours, documentation, oral history and fundraising and hence their overall effect is very moderate as illustrated in figure 6.30.

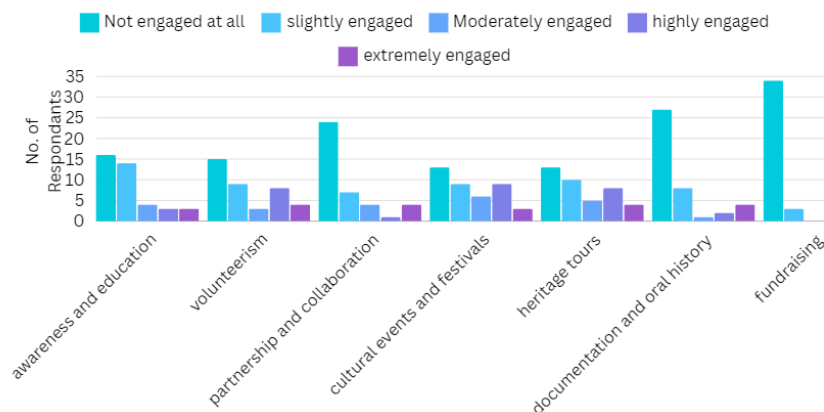


Figure 6.30 Locals' Involvement in Community Initiatives Related to Architectural and Cultural Heritage Preservation

Tourist respondents witnessed major part of local community engagement in heritage preservation and local construction techniques followed up by cultural events and guided tours. Few of them also witnessed development of educational institution and documentation/research (see figure 6.31).

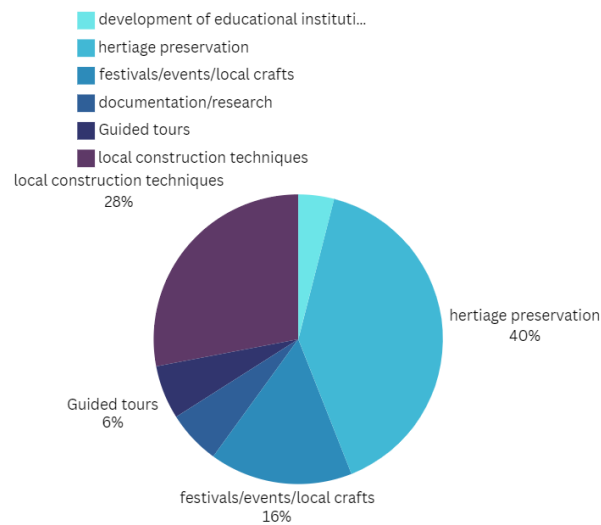


Figure 6.31 Tourists' Opinion on Locals' Involvement in Community Initiatives Related to Architectural and Cultural Heritage Preservation

According to the experts, local community is again very moderately involved in the development process which makes their effect very minor, and hence as observed in figure 6.32, they strongly emphasize the critical role of awareness and education programs, collective workshops/events for locals and tourists and all the other above activities to fully engage them with the tourists and eventually increasing the development process of Cultural Tourism and Architectural Heritage.

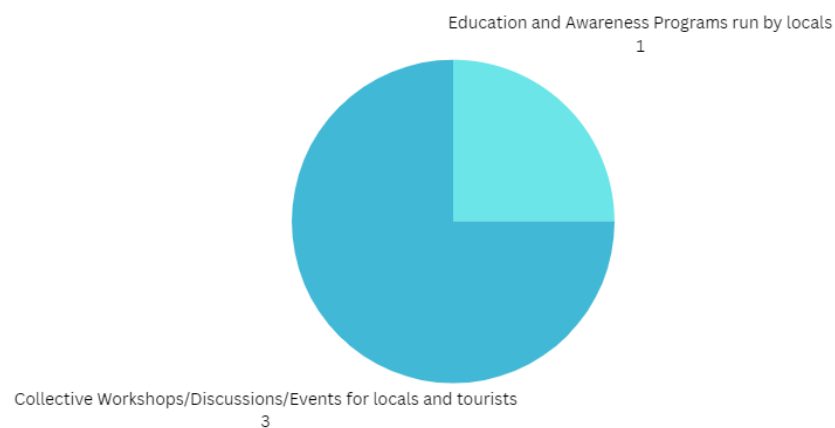


Figure 6.32 Suggestions by Experts to Promote Local Involvement

According to the evidences gathered from the responses of all target-groups, the local community is moderately involved in the development of cultural tourism, preservation

of culture and architecture heritage through education and awareness, volunteerism, partnerships/collaborations, cultural events/festivals, heritage tours, documentation, oral history and fundraising with majority of them not engaged in these activities at all and very few of them extremely involved. This makes their effect on the development very minor and underlines gaps and need for improvement in their involvement in the growth process. The community's poor involvement in official heritage projects, despite strong ties to the location, indicates a lower position on Arnstein's Ladder of Participation, one that is more akin to tokenism than true citizen power (Arnstein, 1969).

6.6. VARIABLE 6: HUNZA VALLEY'S POTENTIAL CULTURAL LANDSCAPE CRITERIA

There are several potential criteria that Hunza can fulfill to be nominated as a cultural landscape site. Cultural History, Traditional Architecture, Regional Identity, and the link of cultural practices with its geography are strongly intertwined and are potential factors that tourists and experts believe Hunza fulfills to be nominated as a Cultural Landscape site as seen in figures 6.33 and 6.34.

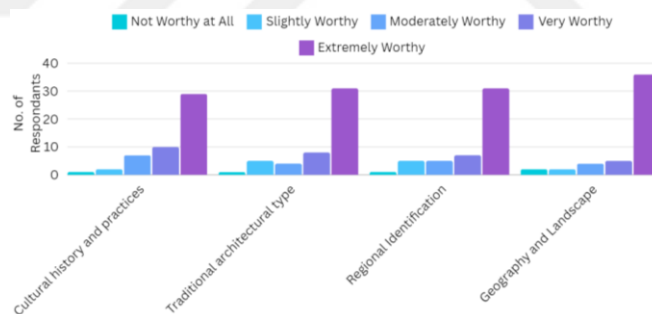


Figure 6.33 Tourists' Perspective on Potential Characteristics of Hunza in Fulfilling Cultural Landscape Criteria

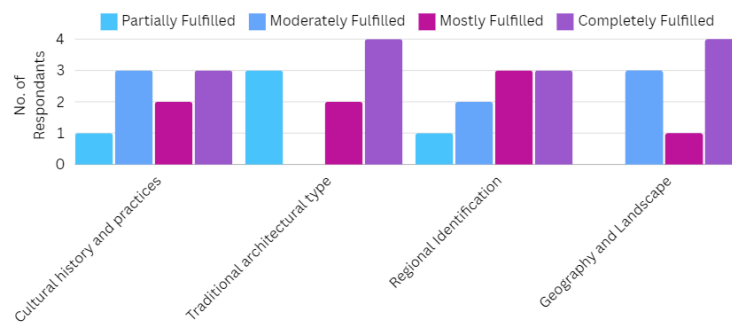


Figure 6.34 Experts' Perspective on Potential Characteristics of Hunza in Fulfilling Cultural Landscape Criteria

Tourists identify strong correlations in all these aspects having correlation coefficient as much as 0.934 as shown in figure 6.35.

			Correlations			
			Cultural History and Practices (worth of hunza as a potential cultural landscape site)	Traditional Architectural Type(worth of hunza as a potential cultural landscape site)	Regional Identification (worth of hunza as a potential cultural landscape site)	Geography and Landscape (worth of hunza as a potential cultural landscape site)
Spearman's rho	Cultural History and Practices (worth of hunza as a potential cultural landscape site)	Correlation Coefficient	1.000	.891**	.934**	.714**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	49	49	49	49
	Traditional Architectural Type(worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.891**	1.000	.813**	.819**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	49	49	49	49
	Regional Identification (worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.934**	.813**	1.000	.721**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	49	49	49	49
	Geography and Landscape(worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.714**	.819**	.721**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	49	49	49	49

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 6.35 Correlation Table Showing Interrelationships Between Different Potential Cultural Landscape Criteria in Tourists' Perspective

Alternatively, tourists highlight that Hunza's culture, history, architecture, its craft industry are some other unrecognized cultural factors that are essential to its identity but are not recognized. Experts also identify cultural factors such as hospitality, local handmade products or the craft industry, cuisine and traditional food storage methods to

be unrecognized although they are part of the region's identity (see figures 6.36 and 6.37).

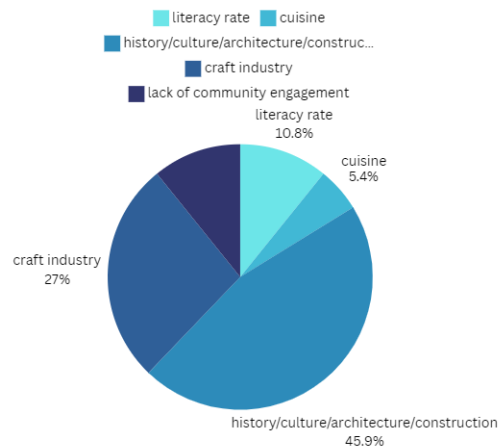


Figure 6.36 Unrecognized Cultural Factors Crucial to Hunza's Identity in Tourists' Viewpoint

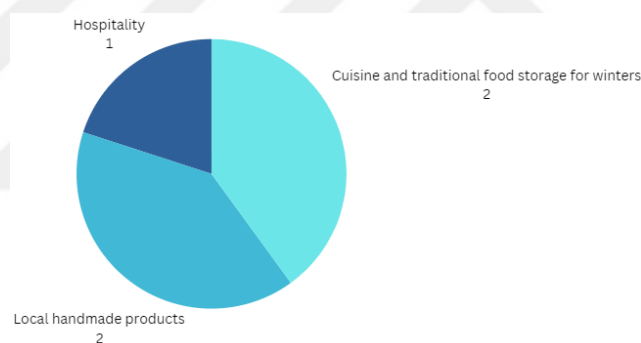


Figure 6.37 Unrecognized Cultural Factors Crucial to Hunza's Identity in Experts' Viewpoint

Both tourists and experts acknowledge the cultural, historical, architectural and geographical richness of Hunza. Cultural History, traditional architecture, regional identity, the link of cultural practices with its geography are strongly correlated and are some potential factors that tourists and experts believe Hunza fulfills to be nominated as a Cultural Landscape site.

6.7. VARIABLE 7: TOURISM MANAGEMENT PRACTICES

In order to improve the visitor experience of cultural tourism in Hunza, tourists highlight several improvements such as tourism infrastructure development, well-

organized tours, cost-effectiveness, and awareness and education visitor centers etc. as seen in figure 6.38.

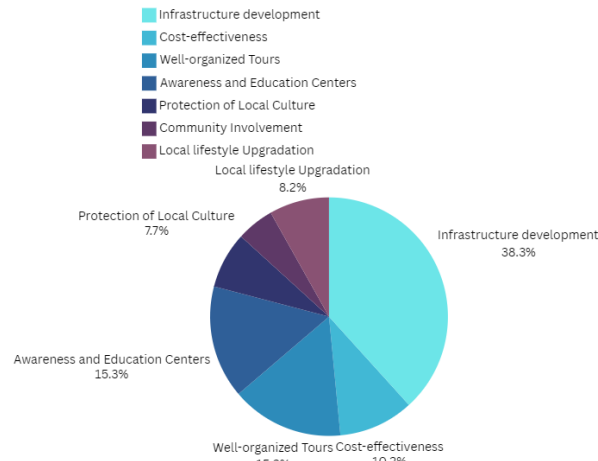


Figure 6.38 Tourists' Suggested Improvements in Cultural Tourism Experience

However, experts identify several other improvements from their professional perspectives. They include significant to extreme improvements in accommodation and transportation facilities, recreational activities, better cultural exchange through locals, accessibility, safety measures, information services, waste management and guided tours (see figure 6.39).

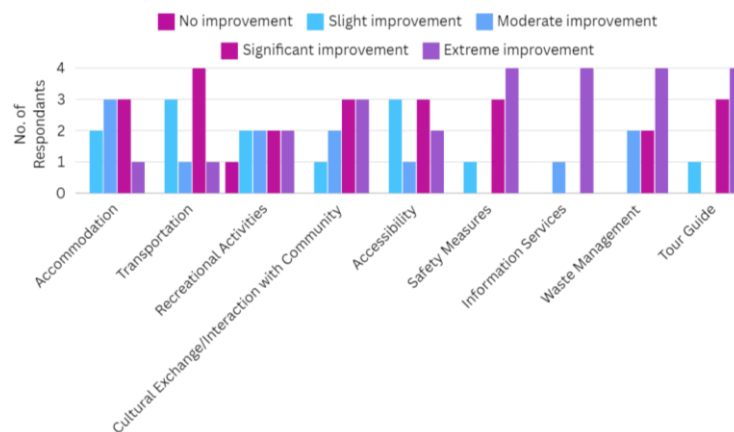


Figure 6.39 Experts' Suggested Improvements in Cultural Tourism Experience

Based on evidences from user-groups, the economic potential of cultural tourism can be enhanced by development of tourism infrastructure, better involvement of locals through cultural festivals, education and awareness programs, heritage preservation

initiatives, marketing and global outreach as well as collaboration with travel agencies. Significant portion of the analysis suggests the interconnectedness of Cultural Tourism and Architecture Heritage promotion as shown in figures 6.40 and 6.41.

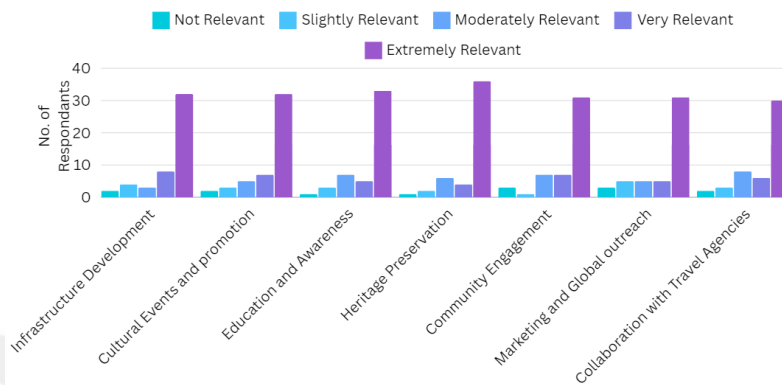


Figure 6.40 Tourists' Suggestions to Enhance Economic Potential of Cultural Tourism to Promote Architectural Heritage

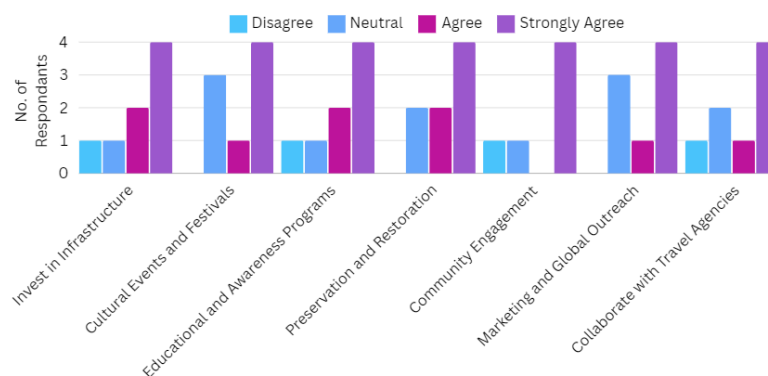


Figure 6.41 Experts' Suggestions to Enhance Economic Potential of Cultural Tourism to Promote Architectural Heritage

Experts identify that the current tourism management practices in Hunza are unplanned, the infrastructure is not standardized, requires improvement in fund management and better marketing strategies. Through the recommendations of user-groups and experts, significant improvements are required in improving the tourism management in Hunza. These improvements comprise of visitor information centers, cultural festivals, preservation of heritage sites, tourism infrastructure development,

tourism safety measures, marketing and tourism packages, guided tours, waste management, and preservation of natural landscape (see figures 6.42-6.44)

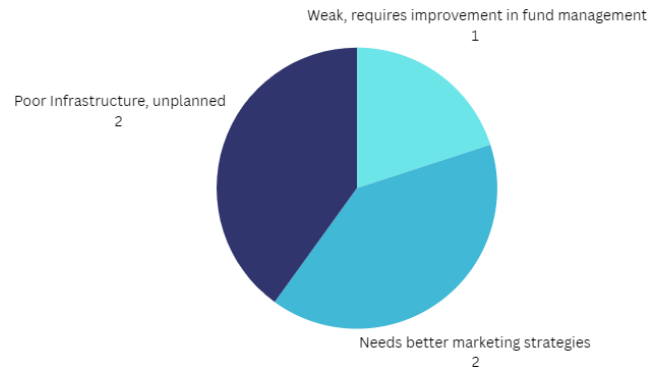


Figure 6.42 Weaknesses of Current Tourism Management Practices in Experts' Viewpoint

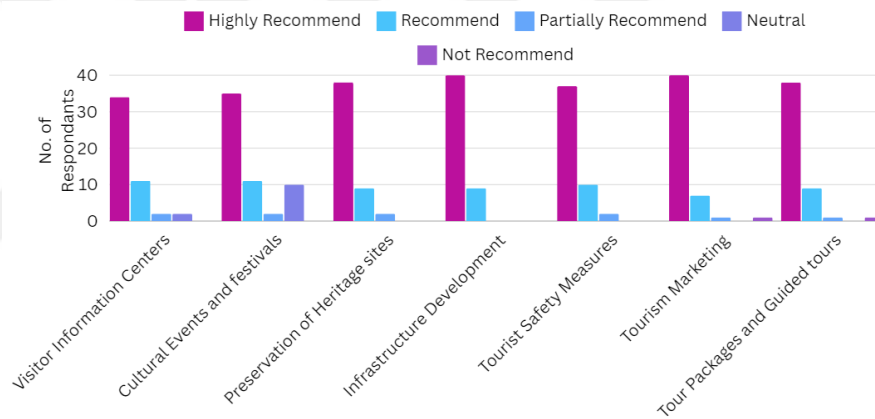


Figure 6.43 Tourists' Suggested Improvements to Enhance Tourism Management in Hunza

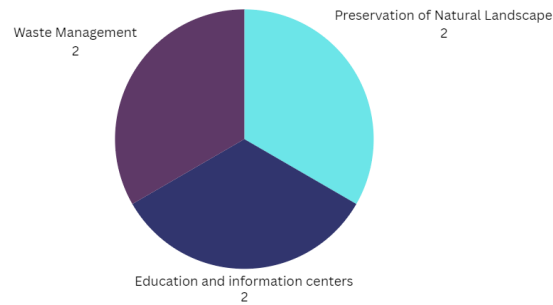


Figure 6.44 Experts' Suggested Improvements to Enhance Tourism Management in Hunza

Lastly, experts suggest architectural documentation, training and capacity building, incentives for conservation and international collaborations for the purpose of protecting and promoting architectural heritage of Hunza (see figure 6.45)

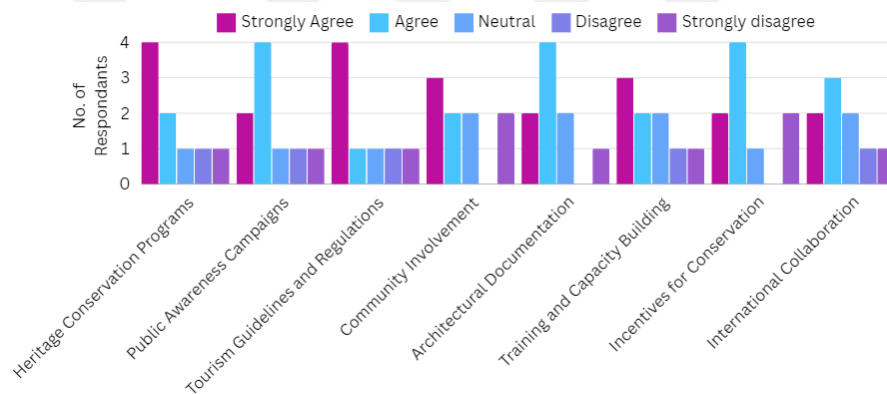


Figure 6.45 Experts' Suggested Initiatives to Promote and Protect Architectural Heritage in Hunza

CHAPTER 7

CONCLUSION

Based on the findings of primary and secondary research, this chapter presents an analytical response to the main research questions and hypotheses. It amalgamates expert views, societal perspectives and firsthand observations to critically assess the potentials of cultural landscape in Hunza. Particular attention is put to natural, architectural and socio-economic factors, along with the region's fit to UNESCO's cultural landscape criteria, to provide a holistic overview of its present and future standings.

According to UNESCO, cultural landscapes are categorized into three types: Clearly defined landscapes designed and created intentionally by humans; Organically evolved landscapes, which develop through interaction between humans and nature; and, Associative cultural landscapes, linked with religious, artistic, or cultural associations of the natural element.

Hunza fits best with the second and third categories: Hunza is evolved organically as a landscape, its terraced farming, traditional settlements as well as seismic responsive architecture are a result of millennial adaptation to the natural geography. The harmonious evolution of mountain terrain and climate challenges has led to the development of cultural practices, as well as architectural techniques, such as Cator and Cribbage types, and settlement patterns.

Additionally, it aligns strongly with the associative landscapes through the cultural and spiritual significance associated with its heritage sites like Baltit and Altit Forts, its local folklore and festivals found deeply in its ancestral beliefs.

Furthermore, a site is nominated as a cultural landscape site if it fulfills the guidelines set by UNESCO under the World Heritage Convention. To be recognized, a location must accomplish at least one of the ten criteria. These criteria are divided into two sub-categories or sets; one set forming six points requires the site to have cultural significance, and the other set comprising of four points contains additional considerations for nomination.

Hunza shows strong alignment with some of these criteria, although some gaps also exist. The following table shows the potential and alignment of Hunza with these criteria and also highlights gaps in the fulfilment.

Table 7.1 Hunza Valley's Potential Cultural Landscape Criteria and Gaps (Prepared by Author)

Criteria	Hunza's Potential	Gaps
Cultural and Historical Significance	Rich history with ancient forts, historic strategic location, ancient migrations, ethnic diversity and trade system, existence of rock carvings and petroglyphs	Historic settlements have modified into modern development, unsystematic conservation initiatives
Authenticity and Integrity	Vernacular architecture, traditional settlement patterns, local construction techniques, indigenous building techniques to adapt to mountain terrain authentic culture with traditional farming, and social beliefs.	Urbanization and contemporary construction methods threaten traditional architecture, tourist commercialization impacts local culture
Outstanding Universal Value	Globally distinct geography, with human settlements along varying terrain, traditional and sustainable lifestyle adapted to extreme conditions	Lack of recognition as a potential cultural landscape, more comparative analysis required to support the nomination
Human-Nature Interaction	Traditional irrigation techniques, terrace farming, eco-friendly agrarian practices for harsh climate	Influence of modern lifestyles impacting traditional irrigation systems
Sustainable Land Use and Cultural Continuity	Self-sustaining lifestyles, traditional economy based on natural farming and handicrafts, rich communal values	Influence of modern lifestyles impacting traditional cultural systems
Legal Protection & Management	Baltit and Altit forts protected under Aga Khan Trust for Culture, community-led	Lack of official government-supported conservation framework or strategies, lacks

	conservation initiatives in some villages	strong legal support required for nomination
Community and Stakeholder Support	Highly engaged in cultural preservation through homestays, festivals, handicrafts and guided tours, support of Aga Khan Trust for Culture	Requires stronger interaction among local organizations, government and international bodies, awareness and education programs required to train locals in heritage conservation etc.
Tourism Sustainability	Some eco-tourism initiatives, local businesses promote traditional cuisine, crafts etc.	Mismanaged tourism growth, lack of management in visitor control to avoid over-crowding at historic sites.

7.1. ANSWERING RESEARCH QUESTIONS

1. What potential criteria does Hunza fulfill to be acknowledged as a cultural landscape site, and how do the natural, architectural and economic values contribute to this acknowledgement?

Hunza fulfills several potential criteria to be acknowledged as a cultural landscape site as described in the above section. Both tourists and experts state that its essential elements are regional identity, traditional architecture, cultural history, and the connection between geography and cultural practices. In addition to influencing architecture, the natural landscape—which is defined by mountains, rivers, terraced fields, and seismic activity—also influences cultural customs, clothing, and cuisine. Hunza's unique identity is strengthened by this interaction.

In terms of architecture, using locally produced, sustainable building materials like wood, mud, and stone—as well as traditional building methods like Cator and Cribbage—offers seismic resistance, enhancing the sustainability and authenticity of the cultural landscape. Locals view tourism's positive effects on the economy, job development, and social interaction as significant contributors, pointing to a dynamic, living cultural environment supported by both tourism and community involvement.

- What geographical characteristics in Hunza valley appear as opportunities and limitation in shaping its cultural landscape?

The culture and architecture of Hunza are heavily influenced by geographical features such as mountains, rivers, terraced plains, and seismic zones. These characteristics present challenges including land inaccessibility, natural risks, and infrastructure limits, but they also present potential for distinctive building designs, agricultural patterns, and traditional activities. Experts acknowledge a more complicated and non-linear influence, particularly with regard to the choice of building materials and settlement design, even though locals and tourists perceive these characteristics as being somewhat connected to cultural features.

- How is Hunza's architecture preserved in the frequent seismic activity?

The main strategies used to conserve Hunza's architecture are community-led construction approaches, low-profile buildings, and conventional seismic-resilient techniques. Commonly employed methods include mud-straw composites, wooden tracery, and stone masonry. Although residents view these as closely related and deeply ingrained in regional customs, experts also stress orientation alignment and contemporary retrofitting as separate but complementary earthquake resilience strategies.

- What is the role of the local community in developing the cultural tourism and preserving architectural heritage in Hunza?

The local community plays a moderate yet important influence. In addition to using traditional building techniques and participating in cultural events, the locals also take part in a few educational and heritage preservation projects. However, there is a significant disconnect, as many residents are disengaged and tourists frequently are not aware of local initiatives. In order to improve their role, experts emphasize the necessity of awareness campaigns, joint events, and improved community-tourist contact, pointing out that existing participation, despite its potential, has little developmental impact.

2. How can the current tourism management practices be enhanced to promote its cultural landscape through cultural tourism?

A multifaceted strategy is required to improve tourism management and promote Hunza's cultural landscape. Although tourism has boosted the economy, it has also led

to environmental damage, congestion, and the destruction of historic sites. To promote sustainable tourism, experts point to the necessity of waste management systems, defined preservation criteria, educational tourist centers, and planned infrastructure.

Since present efforts are hindered by a lack of government attention, disorganized development, and limited communication, promotion techniques should also incorporate community participation, smart marketing, and safety-focused development plans.

- What are the current strengths and weaknesses of cultural tourism in Hunza valley?

Strengths:

- Economic boost (job creation, increased income)
- Strong social and cultural interaction
- Unique cultural and natural heritage (forts, festivals, crafts)

Weaknesses:

- Overcrowding and historic site deterioration
- Lack of government support and promotional strategies
- Poor infrastructure, unplanned development
- Gaps in education/awareness programs for visitors
- Environmental concerns (waste, traffic, natural degradation)

While locals focus on socio-economic gains and site damage, experts underline strategic and systemic flaws, revealing a need for comprehensive, well-managed tourism planning.

- How has the opening of Karakoram Highway influenced tourist influx, and what benefits or challenges has it created?

The Karakoram Highway (KKH) has greatly enhanced accessibility, making it a primary reason for tourist influx, as reported by both tourists and experts. Key benefits include:

- Improved connectivity
- Scenic tourism and adventure opportunities
- Better time management for travel
- Economic opportunities in hospitality, crafts, and other sectors

However, challenges include:

- Landslides, broken bridges, and temporary closures
- Overcrowded heritage sites
- Poor waste and traffic management
- Lack of rest stops and infrastructure maintenance

Experts warn that while KKH boosts accessibility, this does not always translate to improved tourism unless supporting infrastructure and sustainability measures are also developed.

7.2. ANSWERING THE HYPOTHESES

1. The natural, architectural and economic values of Hunza valley together shape its identity and culture, with its recognition and development as a cultural landscape site

Based on the research, this hypothesis is partially proven. The data reveals both locals and experts concur that Hunza's tourism has greatly benefited the local economy by creating job opportunities and other economic benefits.

Experts highlight that Hunza's identity is largely shaped by its natural and architectural features, including its distinctive topography, fortresses, and ancient building methods. Additionally, the cultural diversity and adaptability in traditions and architecture that define the valley's identity are recognized by both community and experts.

Although Hunza's cultural identity is shaped in part by these aspects, the region is still in the process of gaining official recognition and growth in order to be designated as a cultural landscape. There is still little planned promotion and community involvement. Thus, although the potential of the cultural landscape is clearly present, full acknowledgment and development have not yet been achieved.

2. Hunza's cultural tourism acts as a significant tool to promote and preserve its cultural landscape, along with strategic tourism management practices to reinforce sustainable development and fulfilment of criteria of cultural landscape site.

This hypothesis is partially proven as well. The research analysis highlights that Hunza has benefited from cultural tourism in a number of ways, including increased employment, exposure to community culture, and economic growth.

Experts acknowledge that tourism can be used to promote and maintain cultural aspects, particularly history, architecture, and regional craft industry. On the other hand, shortcomings like crowded historic sites, inadequate infrastructure, a lack of advertising, and inadequate education and awareness initiatives show that tourist management techniques are still in their early stages.

Cultural tourism's full potential as a comprehensive preservation and promotion tool is further hindered by the local community's limited participation in preservation initiatives and the absence of organized sustainable tourism plans.

- The opening of the Karakoram Highway has significantly influenced tourism growth in Hunza, but without adequate planning, it risks undermining the preservation of its cultural landscape.

This sub-hypothesis is validated by the research. The Karakoram Highway (KKH) has vastly improved accessibility and is cited as a key reason for increased tourist influx, especially for scenic and adventure tourism. Economic benefits include hospitality growth, handicrafts, and local services. However, the challenges are equally critical — including increased waste, overcrowded heritage sites, traffic mismanagement, and infrastructural strain. Experts warn that while KKH plays a pivotal role in boosting tourism, it also accelerates degradation unless matched by responsible planning, regular maintenance, and environmental safeguards. Thus, it is a two-sided development tool.

- The current tourism management practices in Hunza are insufficient to sustain cultural tourism, and improved strategies are essential to ensure long-term preservation of the cultural landscape.

This sub-hypothesis is supported with strong evidence. Both expert analysis and field responses reveal significant weaknesses in current tourism management. These include lack of waste disposal systems, disorganized development, minimal tourist education, poor promotional strategies, and insufficient involvement of locals in tourism planning.

Although cultural tourism has brought economic and cultural visibility, its sustainability is threatened by the absence of strategic frameworks. Experts recommend integrated approaches—community participation, preservation guidelines, tourism education centers, and infrastructural upgrades—to transform tourism into a preservation tool rather than a risk factor.

The final table demonstrates key findings regarding the three main variables that are analyzed to reimagine the cultural landscape potential and identity of Hunza.

Table 7.2 Key Findings of the Three Variables (Prepared by Author)

Natural Value	Architectural Heritage Value	Economic Value
• Situated in northern Pakistan, the Himalayan and Karakoram mountain ranges around it. • A rich terrain featuring rivers, terraced fields, and snow-capped mountains • Clean air, glacial lakes (like Attabad Lake), rivers (like the Hunza River), and breathtaking mountain vistas (like Rakaposhi) are some of its known features. • A Four-season scenery: winter snow, fall foliage, summer greenery, and spring blooms • Ecotourism and nature lovers are drawn to natural sites. - The natural	• Historical forts such as Altit Fort and Baltit Fort exist • Traditional building techniques utilizing timber, mud, and stone masonry; compact settlement patterns adaptive to natural growth forms mountainous terrain • Native building methods utilizing regional resources; passive design strategies tailored to severe winters and seismic hazards • Heritage site restoration via community-based efforts (e.g., Aga Khan Cultural Service Pakistan	• The local economy greatly benefits from tourism, particularly cultural and ecotourism • domestic and international travel increases throughout the spring and summer months • local businesses such as handicrafts, lodging, cafés, and adventure guides profit from tourism. • Apples, apricots, cherries, and other organic products are still a staple of the local economy • Demand for better transportation, communication, and sanitation infrastructure is

potential of Hunza is enhanced by its biodiversity and picturesque surroundings. • Opportunities for ecotourism, hiking, and trekking because to the climate and rugged terrain	activities) • Architecture and culture adds to the cultural landscape value in accordance with UNESCO's criteria • Architecture reflects local identity and continuity through cultural symbolism	fueled by tourism. • Employment in the tourism industry includes guides, drivers, craftsmen, hotel employees, and restaurateurs. • Festivals and other tourism-related events cause seasonal income surges.
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In conclusion, this research endorses that the natural landscape, architectural heritage, and changing tourism practices of the Hunza Valley have all influenced its unique and diverse cultural landscape. The results show that there are still significant gaps such as in preservation and community-based development etc. even though Hunza shows strong alignment with UNESCO's cultural landscape criteria. The research hypotheses have been partially validated, which underscores the prospective of cultural tourism as a strategy for sustainable heritage conservation and cultural identity reinforcement in addition to economic gain. By combining community viewpoints, observations, and expert perspectives, this study presents a thorough reevaluation of Hunza's cultural environment and establishes a basis for future strategic planning. Hunza has the potential to transform from a culturally promising area into a worldwide recognized cultural landscape site with concentrated efforts on infrastructure, awareness, and participatory tourist methods.

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APPENDIX A SURVEY QUESTIONNAIRE

variable 1: current cultural tourism

survey question 1: Please rate the effects of the following options as strengths of cultural tourism in Hunza, 1 being highest strength and 5 being the lowest.

survey question 2: Please rate the effects of the following options as weaknesses of cultural tourism in Hunza, 1 being the weakest and 5 being close to weak

survey question 3: From your expertise, what are the key strengths of cultural tourism in Hunza? Rate them according to their strengths, 1 being the highest strength, 5 being not at all a strength

survey question 4: From your expertise, what are the weaknesses of cultural tourism in Hunza? Rate them according to their weaknesses, 1 being the weakest, 5 being not at all a weakness

survey question 5: If you have any other weakness in mind, please write it below and rate it

variable 2: geographical factors

survey question 1: as a resident of hunza, please rate the opportunities you get in terms of the following aspects due to geographical conditions

survey question 2: as a resident of hunza, please rate the limitations you face in terms of the following aspects due to geographical conditions?

survey question 3: in your expert opinion, what are the key geographical opportunities in hunza that have significantly shaped its cultural practices and architectural style?

survey question 4: in your expert opinion, what are the key geographical limitations in hunza that have significantly shaped its cultural practices and architectural style?

survey question 5: how have these geographical factors influenced architectural typology in Hunza?

survey question 6: how have these geographical factors influenced cultural practices in Hunza?

survey question 7: how much do you spent on geography-related attractions or activities during your visit to Hunza, approximately?

survey question 8: what geographical features or attractions in Hunza influenced your decision to visit the region?

survey question 9: Please describe any architectural styles and techniques you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

survey question 10: Please describe any cultural practices you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

survey question 11: Have you faced any challenges related to accessibility during your visit to Hunza, such as landslides or road closures?

survey question 12: What suggestions do you have for improving accessibility and transportation for tourists in Hunza?

variable 3: kkh establishment

survey question 1: Have you noticed an increase in the number of tourists in Hunza after the construction of the Karakoram Highway?

survey question 2: How much is your daily life affected by the following aspects due to increased tourism?

survey question 3: What benefits have you experienced as a tourist due to the Karakoram Highway's accessibility?

survey question 4: What specific benefits has the Karakoram Highway brought to Hunza's tourism industry?

survey question 5: What specific challenges has the Karakoram Highway brought to Hunza's tourism industry?

variable 4: architecture retention

survey question 1: What are the key architectural styles or techniques in Hunza that you believe have contributed to its cultural heritage?

survey question 2: what are the key architectural styles or techniques in hunza that you believe have contributed to its stability in a seismic zone?

survey question 3: from your expertise, how much has the architectural heritage of hunza retained stability in a seismic zone, both in terms of construction techniques

and materials used? rate each of the following options according to retention property

survey question 4: following are the attributes of architecture heritage. how much do you think they contribute to preserve hunza's cultural identity?

survey question 5: Please rate the following aspects of the architectural heritage of Hunza in terms of their contribution to its cultural identity?

variable 5: community engagement

survey question 1: please describe your involvement or any community initiatives related to architectural heritage and cultural preservation.

survey question 2: Please describe any community initiatives related to architectural heritage that you encountered or heard about during your visit

survey question 3: Please provide your suggestions about promoting community engagement

variable 6: hunza valley's potential cultural landscape criteria

survey question 1: from a tourist perspective, what characteristics or features make hunza worthy of being designated as a cultural landscape site?

survey question 2: what criteria do you believe hunza fulfills to be nominated as a potential cultural landscape site?

survey question 3: please describe any unrecognized cultural factors in hunza that are not widely recognized but are crucial to its identity and are recognized in similar places you've visited.

survey question 4: are there any cultural factors in hunza that are crucial to its identity but currently unrecognized, despite being recognized in other similar places? please provide examples.

variable 7: tourism management practices

survey question 1: please specify any aspects for improvement in the cultural tourism experience in hunza that you observed?

survey question 2: how much do the following factors need improvement for overall visitor experience in hunza?

survey question 3: what suggestions do you have to enhance the economic potential of cultural tourism in hunza and its impact on architectural heritage promotion?

survey question 4: what recommendations do you have to further promote the economic potential of cultural tourism in hunza and its role in promoting architectural heritage? rate each according to its importance in this regard.

survey question 5: in your expert opinion, what are the strengths and weaknesses of the existing tourism management practices in hunza, and what would you recommend to improve it?

survey question 6: from a tourist's perspective, what improvements or changes would you recommend to enhance tourism management in Hunza?

survey question 7: are there any specific areas or aspects of tourism management that you believe need immediate attention or improvements?

survey question 8: please rate the specific initiatives you would suggest for the protection and promotion of architectural heritage?

APPENDIX B SURVEY QUESTIONNAIRE AND RESPONSES

variable 1: current cultural tourism

survey question 1: Please rate the effects of the following options as strengths of cultural tourism in Hunza, 1 being highest strength and 5 being the lowest.

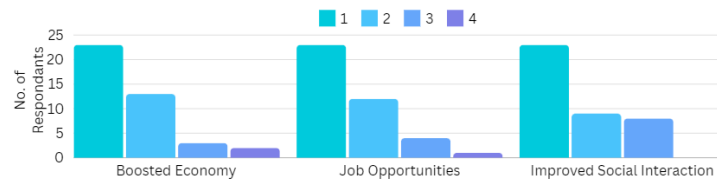


Figure B.1. Strengths of Cultural Tourism in Locals' Perspective

survey question 2: Please rate the effects of the following options as weaknesses of cultural tourism in Hunza, 1 being the weakest and 5 being close to weak

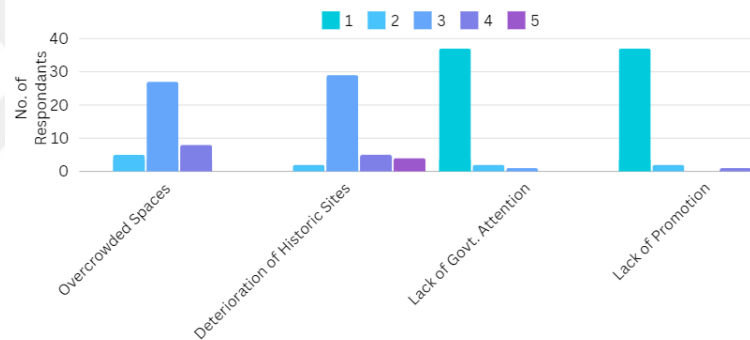


Figure B.2. Weaknesses of Cultural Tourism in Locals' Perspective

survey question 3: From your expertise, what are the key strengths of cultural tourism in Hunza? Rate them according to their strengths, 1 being the highest strength, 5 being not at all a strength



Figure B.3. Strengths of Cultural Tourism in Experts' Perspective

survey question 4: From your expertise, what are the weaknesses of cultural tourism in Hunza? Rate them according to their weaknesses, 1 being the weakest, 5 being not at all a weakness

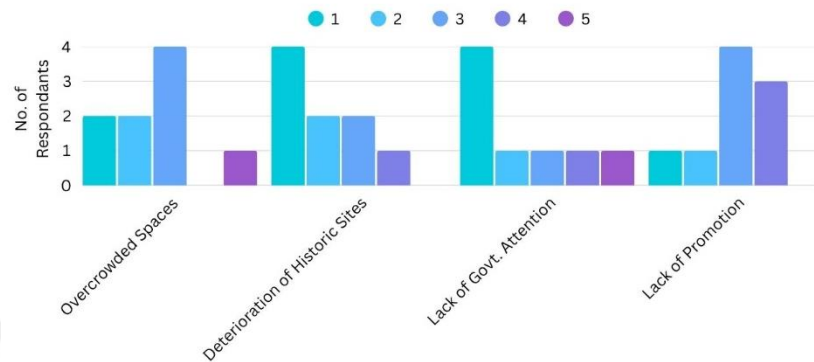


Figure B.4. Weaknesses of Cultural Tourism in Experts' Perspective

survey question 5: If you have any other weakness in mind, please write it below and rate it

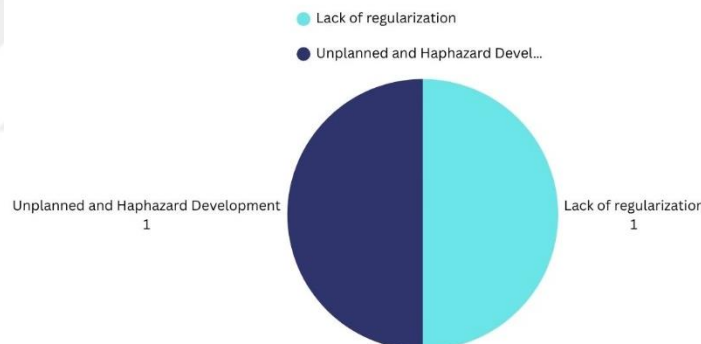


Figure B.5. Additional Weaknesses of Cultural Tourism in Experts' Perspective

variable 2: geographical factors

survey question 1: As a resident of Hunza, please rate the opportunities you get in terms of the following aspects due to geographical conditions

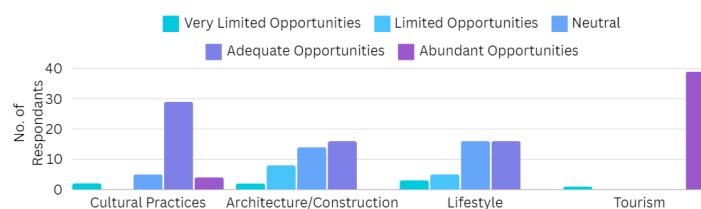


Figure B.6. Geographical Opportunities in Locals' Perspective

survey question 2: As a resident of Hunza, please rate the limitations you face in terms of the following aspects due to geographical conditions?

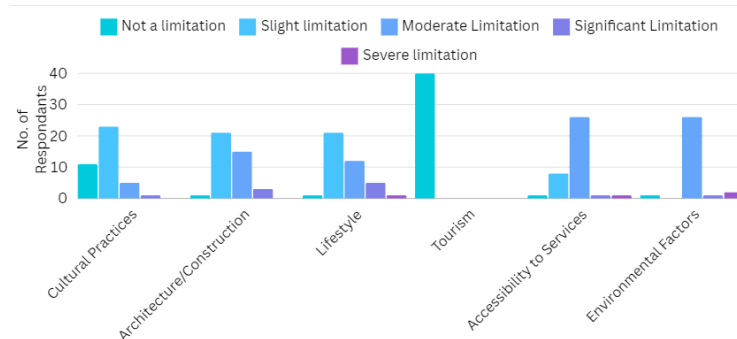


Figure B.7. Geographical Limitations in Locals' Perspective

survey question 3: In your expert opinion, what are the key geographical opportunities in Hunza that have significantly shaped its cultural practices and architectural style?

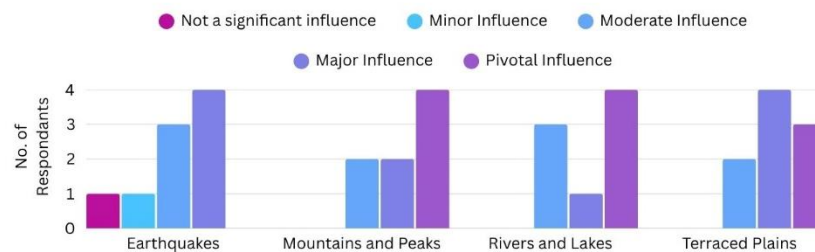


Figure B.8. Geographical Opportunities in Experts' Perspective

survey question 4: In your expert opinion, what are the key geographical limitations in Hunza that have significantly shaped its cultural practices and architectural style?

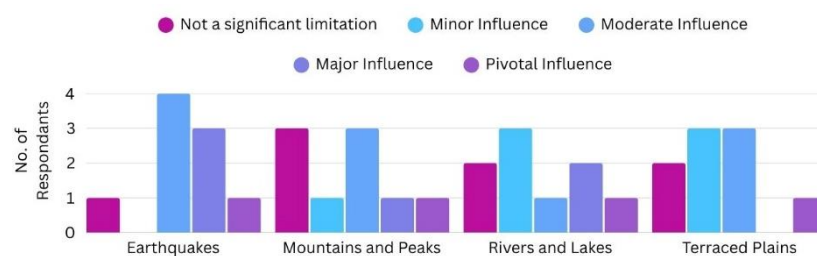


Figure B.9. Geographical Limitations in Experts' Perspective

survey question 5: How have these geographical factors influenced architectural typology in Hunza?

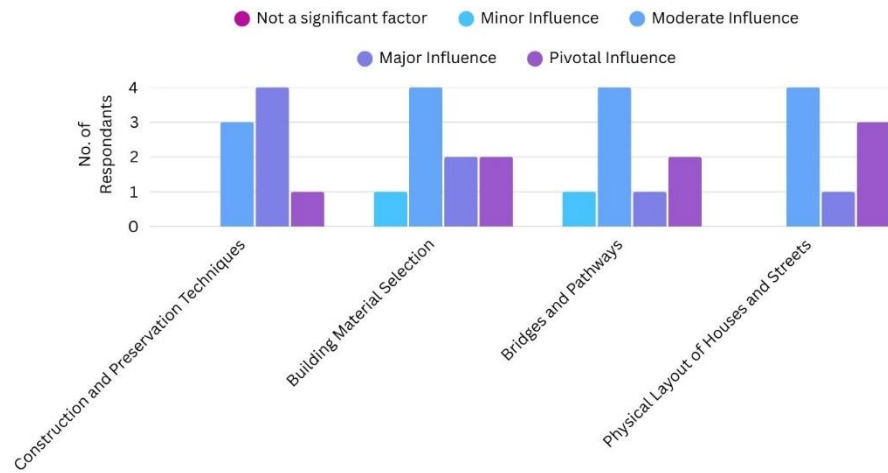


Figure B.10. Architectural Typology Influenced by Geography
survey question 6: How have these geographical factors influenced cultural practices in Hunza?

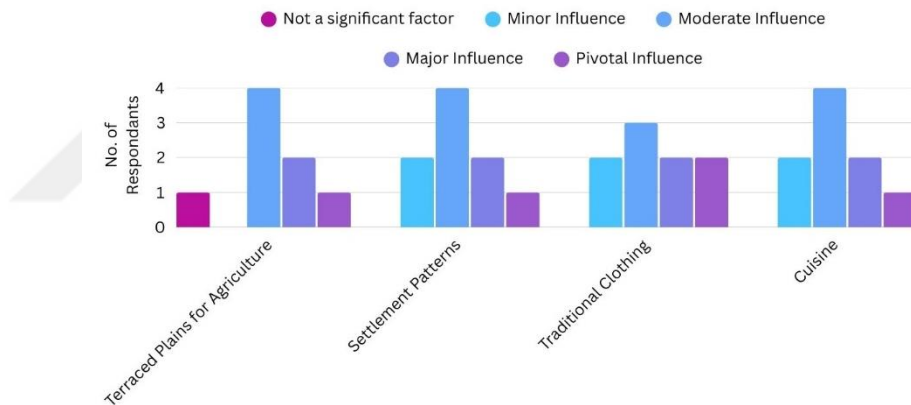


Figure B.11. Cultural Practices Influenced by Geography
survey question 7: How much do you spent on geography-related attractions or activities during your visit to Hunza, approximately?

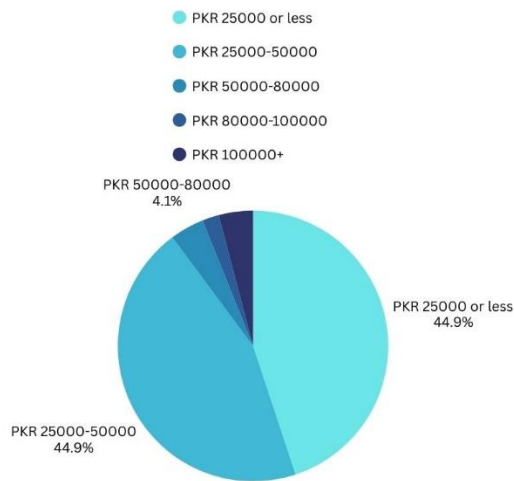


Figure B.12. Tourist Expenditure on Geography-Related Activities and Attractions
survey question 8: What geographical features or attractions in Hunza influenced your decision to visit the region?

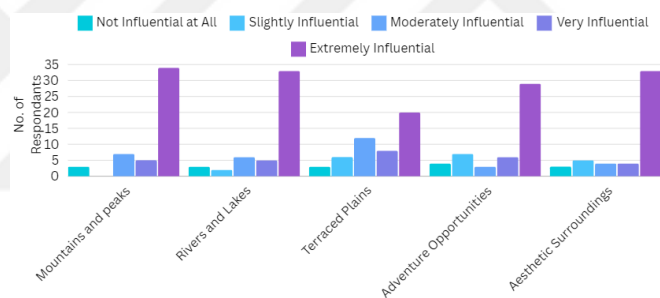


Figure B.13. Geographical Attractions Influential for Tourists in Visiting Hunza
survey question 9: Please describe any architectural styles and techniques you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

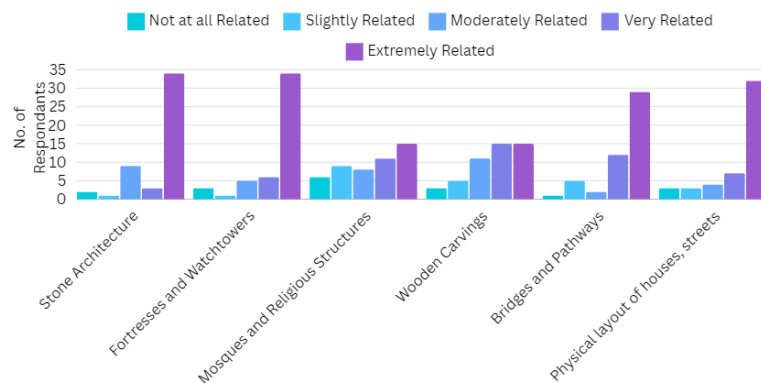


Figure B.14 Architectural Techniques Related to Geography in Tourists' Perspective

survey question 10: Please describe any cultural practices you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

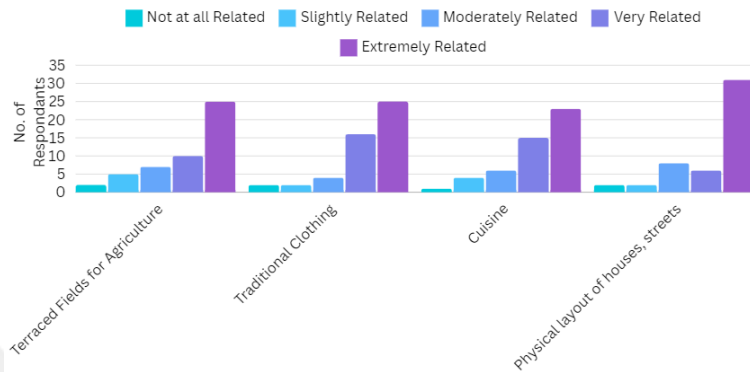


Figure B.15. Cultural Practices Related to Geography in Tourists' Perspective

survey question 11: Have you faced any challenges related to accessibility during your visit to Hunza, such as landslides or road closures?

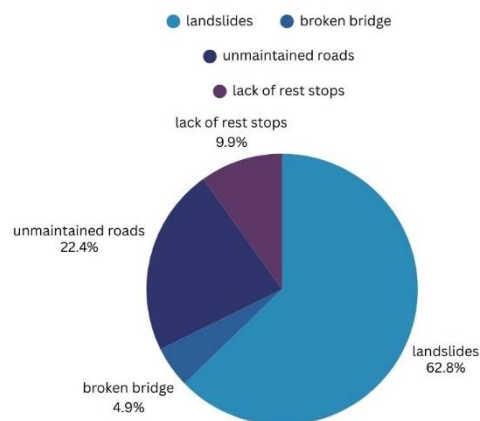


Figure B.16. Accessibility Challenges Witnessed By Tourists

survey question 12: What suggestions do you have for improving accessibility and transportation for tourists in Hunza?

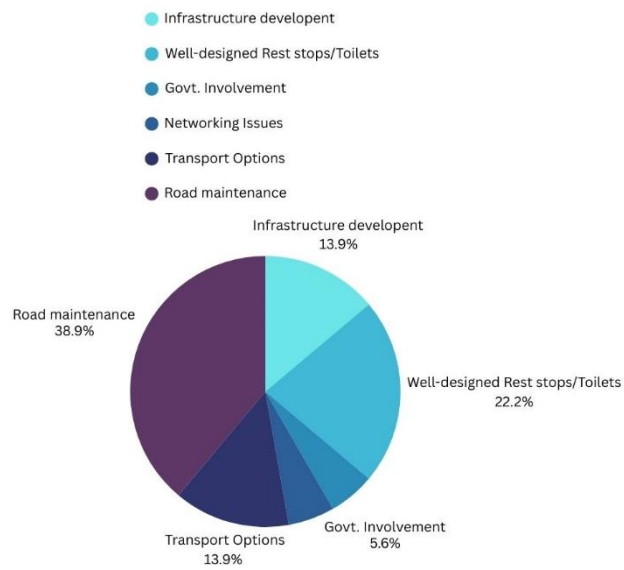


Figure B.17. Tourists' Recommended Improvements for Accessibility

variable 3: kkh establishment

survey question 1: Have you noticed an increase in the number of tourists in Hunza after the construction of the Karakoram Highway?

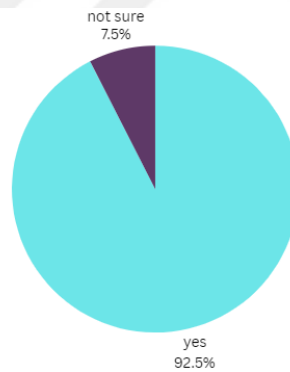


Figure B.18. Locals' Opinion on Tourist Influx due to Karakoram Highway

survey question 2: How much is your daily life affected by the following aspects due to increased tourism?

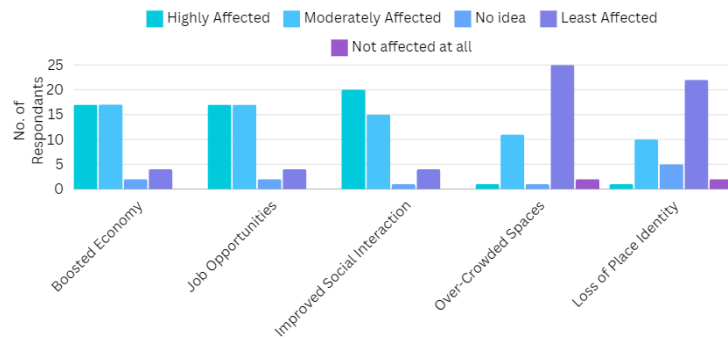


Figure B.19. Aspects Affecting Lives of Locals' Due to Increased Tourism
survey question 3: What benefits have you experienced as a tourist due to the Karakoram Highway's accessibility

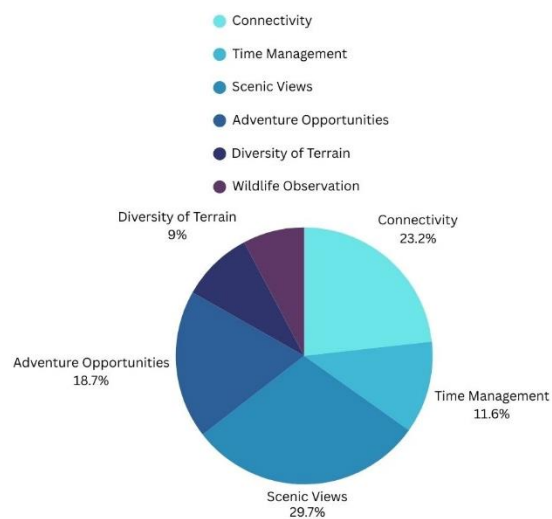


Figure B.20. Tourists' Witnessed Benefits of Karakoram Highway's Accessibility
survey question 4: What specific benefits has the Karakoram Highway brought to Hunza's tourism industry?

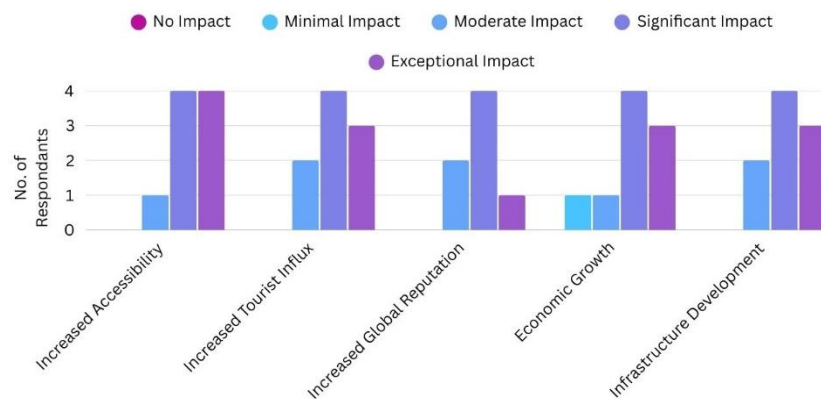


Figure B.21. Experts' Witnessed Benefits of Karakoram Highway

survey question 5: What specific challenges has the Karakoram Highway brought to Hunza's tourism industry?

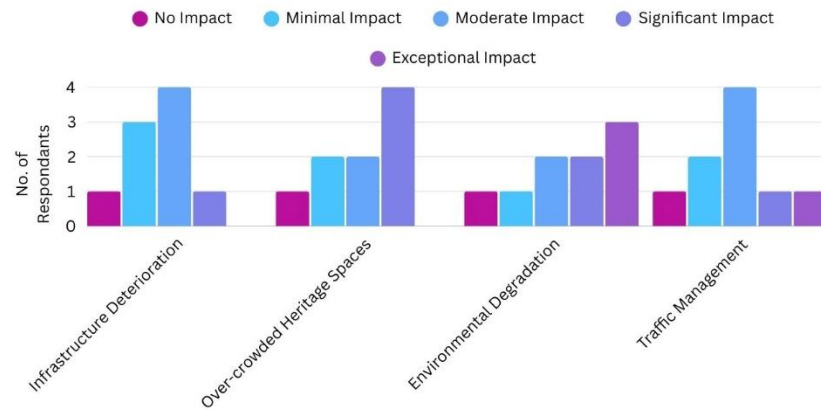


Figure B.22. Experts' Witnessed Challenges of Karakoram Highway

variable 4: architecture retention

survey question 1: What are the key architectural styles or techniques in Hunza that you believe have contributed to its cultural heritage?

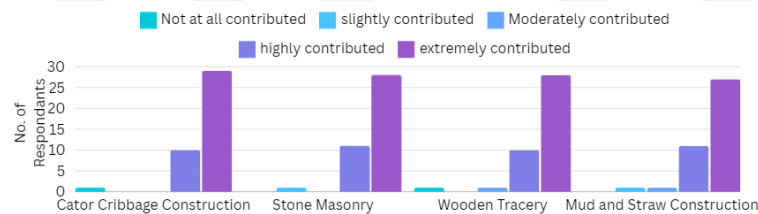


Figure B.23. Locals' Opinion on Architectural Techniques' Contribution in Hunza's Cultural Heritage

survey question 2: what are the key architectural styles or techniques in hunza that you believe have contributed to its stability in a seismic zone? L

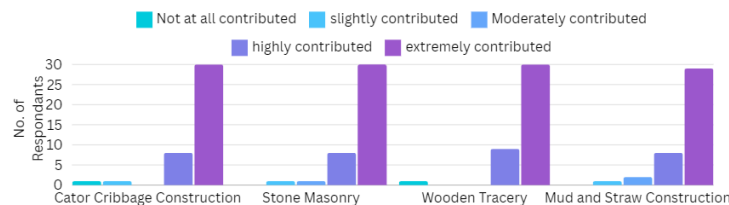


Figure B.24. Locals' Opinion on Architectural Techniques' Contribution in Hunza's Stability in Seismic Zone

survey question 3: From your expertise, how much has the architectural heritage of Hunza retained stability in a seismic zone, both in terms of construction techniques

and materials used? Rate each of the following options according to retention property

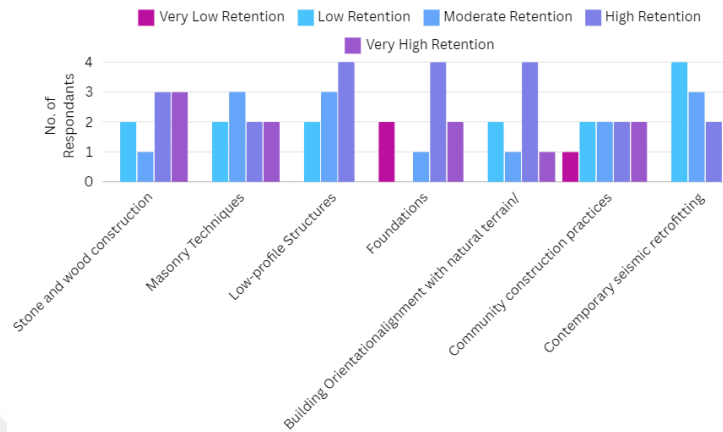


Figure B.25. Experts' Opinion on Architectural Techniques' Contribution in Hunza's Stability in Seismic Zone

survey question 4: Following are the attributes of architecture heritage. How much do you think they contribute to preserve Hunza's Cultural Identity? 1

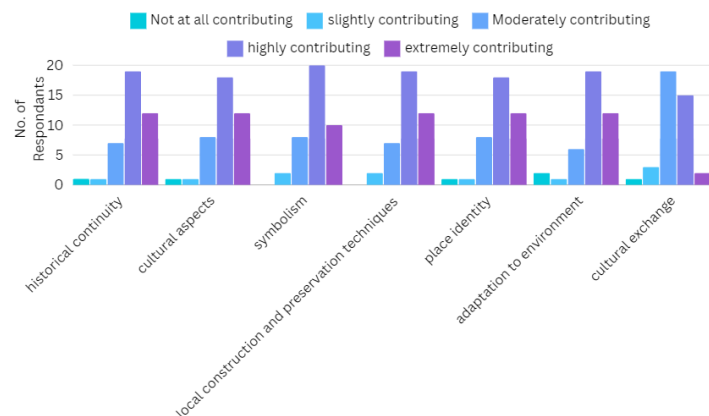


Figure B.26. Locals' Opinion on Architectural Heritage Attributes' Contribution to Preserve Hunza's Cultural Identity

survey question 5: Please rate the following aspects of the architectural heritage of Hunza in terms of their contribution to its cultural identity? T

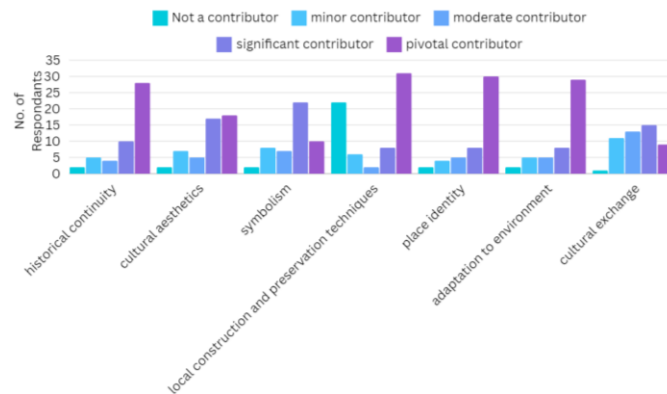


Figure B.27. Tourists' Opinion on Architectural Heritage Attributes' Contribution to Preserve Hunza's Cultural Identity

variable 5: community engagement

survey question 1: please describe your involvement or any community initiatives related to architectural heritage and cultural preservation.

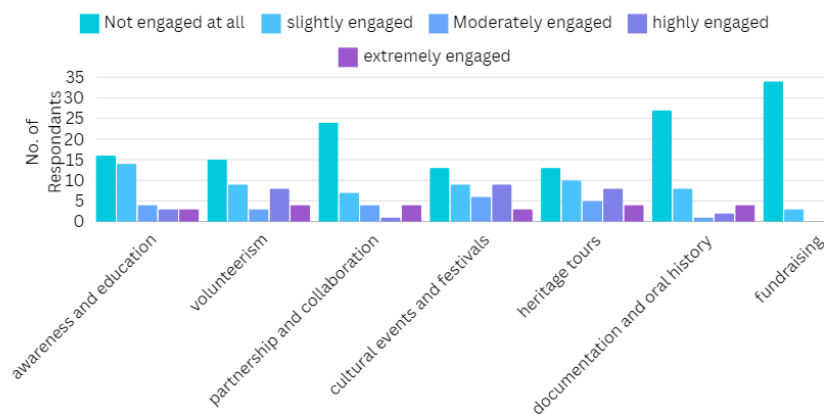


Figure B.28. Locals' Involvement in Community Initiatives Related to Architectural and Cultural Heritage Preservation

survey question 2: Please describe any community initiatives related to architectural heritage that you encountered or heard about during your visit

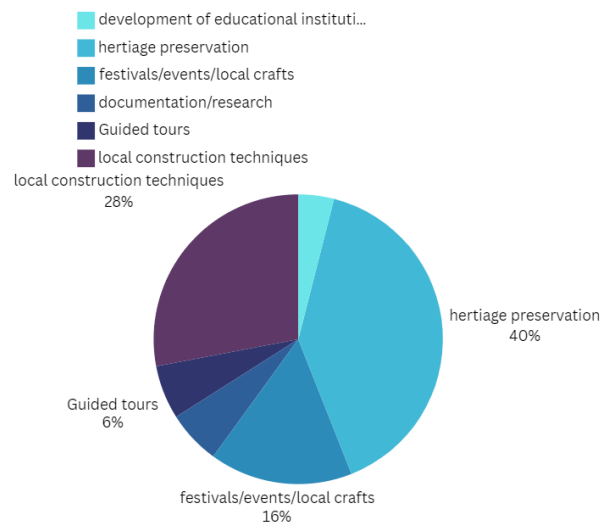


Figure B.29. Tourists' Opinion on Locals' Involvement in Community Initiatives Related to Architectural and Cultural Heritage Preservation
survey question 3: Please provide your suggestions about promoting community engagement

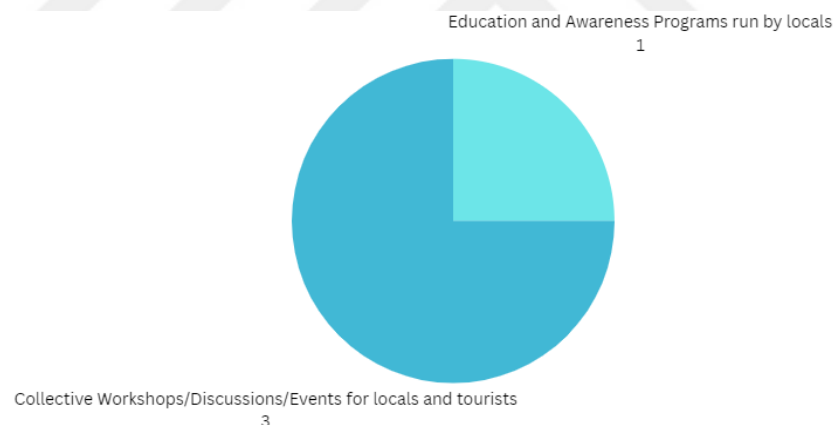


Figure B.30. Suggestions by Experts to Promote Local Involvement
variable 6: hunza valley's potential cultural landscape criteria
survey question 1: From a tourist perspective, what characteristics or features make Hunza worthy of being designated as a cultural landscape site?

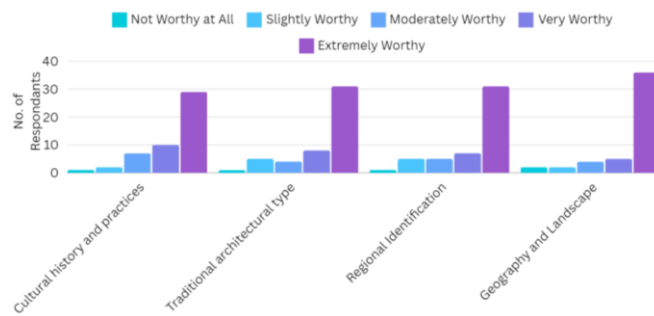


Figure B.31. Tourists' Perspective on Potential Characteristics of Hunza in Fulfilling Cultural Landscape Criteria

survey question 2: what criteria do you believe hunza fulfills to be nominated as a Potential cultural landscape site?

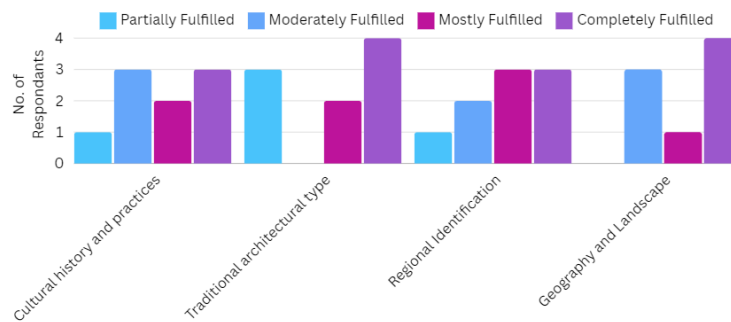


Figure B.32. Experts' Perspective on Potential Characteristics of Hunza in Fulfilling Cultural Landscape Criteria

survey question 3: Please describe any unrecognized cultural factors in Hunza that are not widely recognized but are crucial to its identity and are recognized in similar places you've visited.

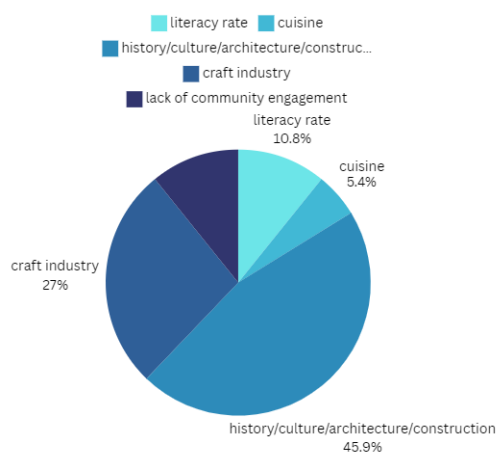


Figure B.33. Unrecognized Cultural Factors Crucial to Hunza's Identity in Tourists' Viewpoint
survey question 4: Are there any cultural factors in Hunza that are crucial to its identity but currently unrecognized, despite being recognized in other similar places? Please provide examples.

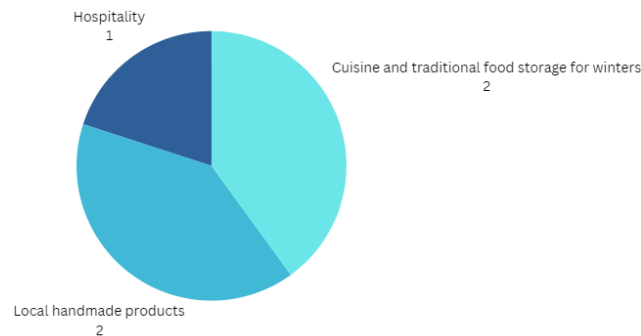


Figure B.34. Unrecognized Cultural Factors Crucial to Hunza's Identity in Experts' Viewpoint
variable 7: tourism management practices
survey question 1: Please specify any aspects for improvement in the cultural tourism experience in Hunza that you observed?

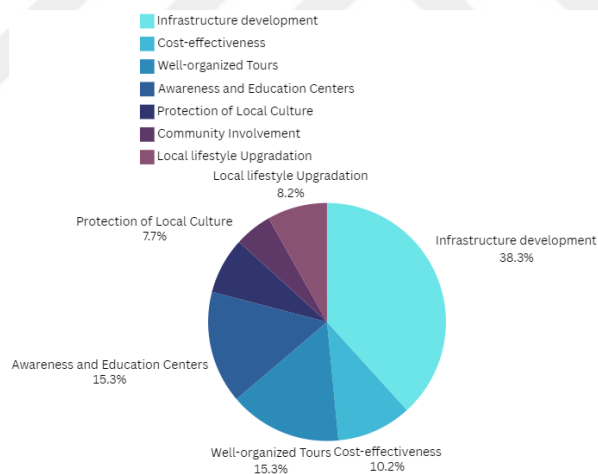


Figure B.35. Tourists' Suggested Improvements in Cultural Tourism Experience
survey question 2: How much do the following factors need improvement for overall visitor experience in Hunza?

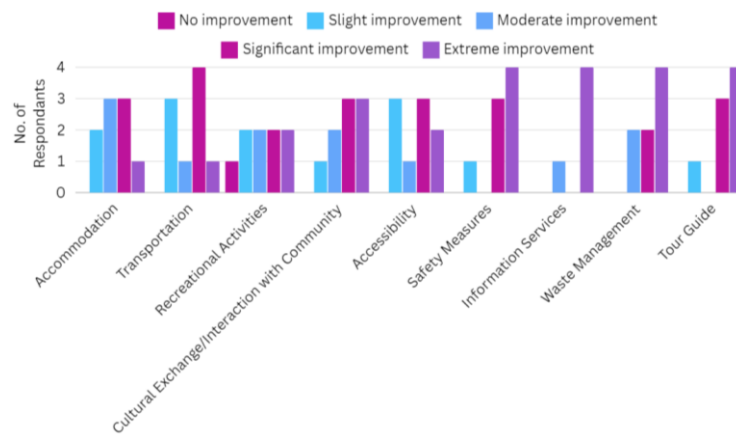


Figure B.36. Experts' Suggested Improvements in Cultural Tourism Experience
survey question 3: What suggestions do you have to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion?

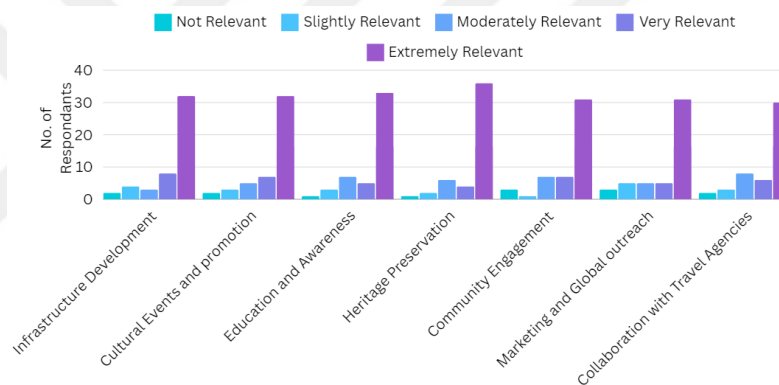


Figure B.37. Tourists' Suggestions to Enhance Economic Potential of Cultural Tourism to Promote Architectural Heritage
survey question 4: What recommendations do you have to further promote the economic potential of cultural tourism in Hunza and its role in promoting architectural heritage? Rate each according to its importance in this regard.

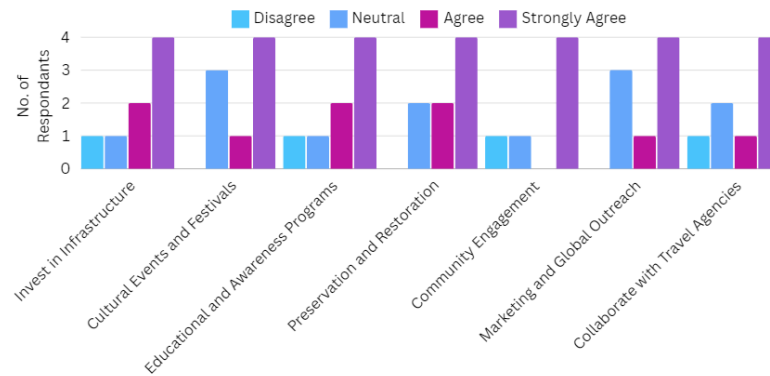


Figure B.38. Experts' Suggestions to Enhance Economic Potential of Cultural Tourism to Promote Architectural Heritage

survey question 5: In your expert opinion, what are the strengths and weaknesses of the existing tourism management practices in Hunza, and what would you recommend to improve it?

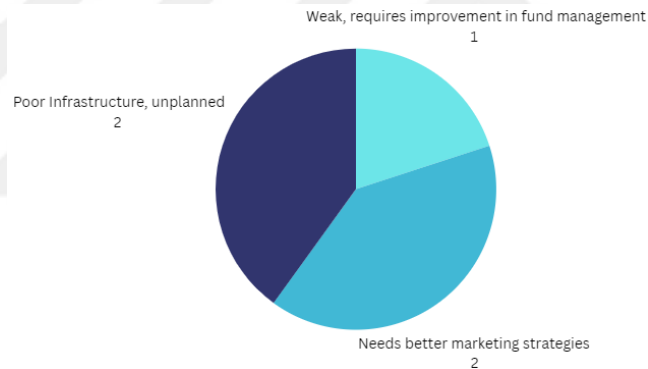


Figure B.39. Weaknesses of Current Tourism Management Practices in Experts' Viewpoint
survey question 6: From a tourist's perspective, what improvements or changes would you recommend to enhance tourism management in Hunza?

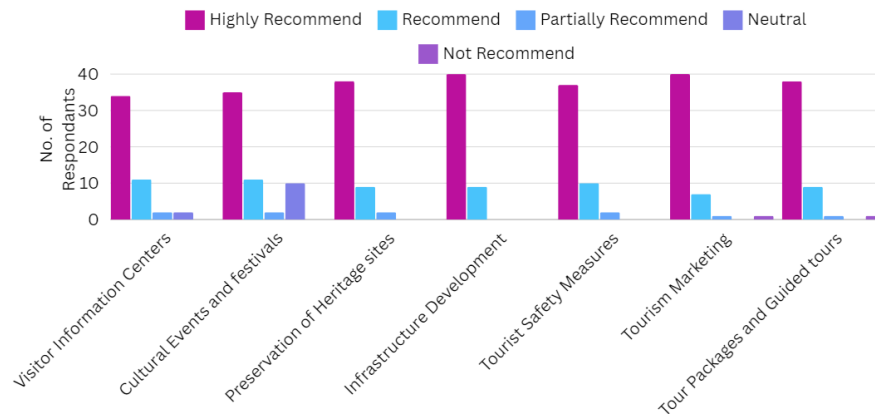


Figure B.40. Tourists' Suggested Improvements to Enhance Tourism Management in Hunza survey question 7: Are there any specific areas or aspects of tourism management that you believe need immediate attention or improvements?

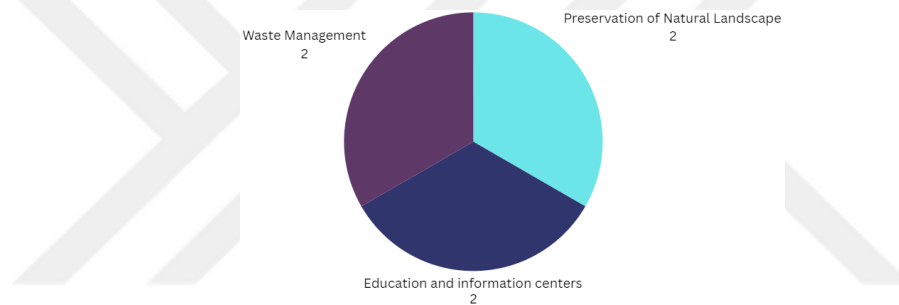


Figure B.41. Experts' Suggested Improvements to Enhance Tourism Management in Hunza survey question 8: Please rate the specific initiatives you would suggest for the protection and promotion of architectural heritage?

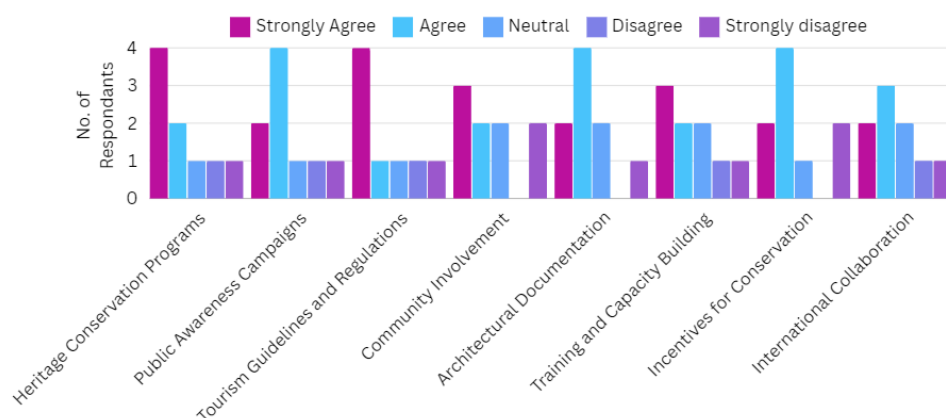


Figure B.42. Experts' Suggested Initiatives to Promote and Protect Architectural Heritage in Hunza

Appendix C CORRELATION TABLES

variable 1: current cultural tourism

local perspective:

Please rate the effects of the following options as strengths of cultural tourism in Hunza, 1 being highest strength and 5 being the lowest.

Correlations			Boosted economy (as a strength of cultural tourism)	Job Opportunities (as a strength of cultural tourism)	Improved social interaction (as a strength of cultural tourism)
Spearman's rho	Boosted economy (as a strength of cultural tourism)	Correlation Coefficient	1.000	.795**	.549**
		Sig. (2-tailed)	.	<.001	<.001
		N	40	40	40
	Job Opportunities (as a strength of cultural tourism)	Correlation Coefficient	.795**	1.000	.530**
		Sig. (2-tailed)	<.001	.	<.001
		N	40	40	40
	Improved social interaction (as a strength of cultural tourism)	Correlation Coefficient	.549**	.530**	1.000
		Sig. (2-tailed)	<.001	<.001	.
		N	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.1. Correlations of Strengths of Cultural Tourism in Locals' Perspective

interpretation:

Boosted Economy vs. Job Opportunities:

Correlation Coefficient (ρ): 0.795

p-value: <0.001 (significant)

A strong positive correlation (0.795) suggests that locals who believe cultural tourism boosts the economy also tend to believe it provides job opportunities. Since the p-value is <0.001, this relationship is statistically significant.

boosted economy vs. improved social interaction:

Correlation Coefficient (ρ): 0.549

p-value: <0.001 (significant)

There's a moderate positive correlation (0.545), meaning locals who think cultural tourism boosts the economy also tend to believe it improves social interactions, but the relationship is weaker than the one with job opportunities. Again, this is significant.

job opportunities vs. improved social interaction:

Correlation Coefficient (ρ): 0.530

p-value: <0.001 (significant)

A moderate positive correlation (0.530) means that locals who see job opportunities as a strength of cultural tourism also see improved social interaction as a strength. This is statistically significant.

local perspective:

Please rate the effects of the following options as weaknesses of cultural tourism in Hunza, 1 being the weakest and 5 being close to weak

Correlations						
			Overcrowded spaces (as a weakness of cultural tourism)	deterioration of historic sites (as a weakness of cultural tourism)	lack of govt. attention (as a weakness of cultural tourism)	lack of promotion (as a weakness of cultural tourism)
Spearman's rho	Overcrowded spaces (as a weakness of cultural tourism)	Correlation Coefficient	1.000	.839**	-.042	.138
		Sig. (2-tailed)	.	<.001	.796	.396
		N	40	40	40	40
	deterioration of historic sites (as a weakness of cultural tourism)	Correlation Coefficient	.839**	1.000	-.061	.077
		Sig. (2-tailed)	<.001	.	.709	.637
		N	40	40	40	40
	lack of govt. attention (as a weakness of cultural tourism)	Correlation Coefficient	-.042	-.061	1.000	.261
		Sig. (2-tailed)	.796	.709	.	.104
		N	40	40	40	40
	lack of promotion (as a weakness of cultural tourism)	Correlation Coefficient	.138	.077	.261	1.000
		Sig. (2-tailed)	.396	.637	.104	.
		N	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.2. Correlations of Weaknesses of Cultural Tourism in Locals' Perspective

Interpretation:

overcrowded spaces vs. deterioration of historic sites:

Correlation Coefficient (ρ): 0.839

p-value: <0.001 (significant)

A very strong positive correlation (0.839) indicates that locals who perceive overcrowded spaces as a weakness also tend to view the deterioration of historic sites as a major weakness. This relationship is statistically significant, showing clear alignment in their rankings.

variable 2: geographical factors

local perspective:

As a resident of Hunza, please rate the opportunities you get in terms of the following aspects due to geographical conditions?

		Correlations				
			cultural practices (rate as an opportunity in terms of geographical conditions)	architecture/c onstruction (rate as an opportunity in terms of geographical conditions)	lifestyle (rate as an opportunity in terms of geographical conditions)	tourism (rate as an opportunity in terms of geographical conditions)
Spearman's rho	cultural practices (rate as an opportunity in terms of geographical conditions)	Correlation Coefficient	1.000	.478**	.449**	.419**
		Sig. (2-tailed)	.	.002	.004	.007
		N	40	40	40	40
	architecture/construction (rate as an opportunity in terms of geographical conditions)	Correlation Coefficient	.478**	1.000	.832**	.231
		Sig. (2-tailed)	.002	.	<.001	.151
		N	40	40	40	40
	lifestyle (rate as an opportunity in terms of geographical conditions)	Correlation Coefficient	.449**	.832**	1.000	.238
		Sig. (2-tailed)	.004	<.001	.	.138
		N	40	40	40	40
	tourism (rate as an opportunity in terms of geographical conditions)	Correlation Coefficient	.419**	.231	.238	1.000
		Sig. (2-tailed)	.007	.151	.138	.
		N	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.3. Correlations of Geographic Opportunities in Locals' Perspective

Interpretation:

cultural practices vs. architecture/construction:

Correlation Coefficient (ρ): 0.478

p-value: 0.002 (significant)

A moderate positive correlation indicates that locals who see opportunities in cultural practices due to geography also perceive similar opportunities in architecture and construction. This relationship is statistically significant, showing a moderate alignment.

cultural practices vs. lifestyle:

Correlation Coefficient (ρ): 0.449

p-value: 0.004 (significant)

A moderate positive correlation suggests that locals who view geographical conditions as benefiting cultural practices also see a connection with lifestyle opportunities. This relationship is also statistically significant.

cultural practices vs. tourism:

Correlation Coefficient (ρ): 0.419

p-value: 0.007 (significant)

Another moderate positive correlation (0.415), showing that locals link cultural practices influenced by geography to tourism opportunities. This is statistically significant, highlighting the interconnection between geography's impact on culture and tourism.

architecture/construction vs. lifestyle:

Correlation Coefficient (ρ): 0.832

p-value: <0.001 (significant)

A strong positive correlation, indicating locals strongly believe that geography creates similar opportunities for both architecture/construction and lifestyle. This is statistically significant.

local perspective:

As a resident of Hunza, please rate the limitations you face in terms of the following aspects due to geographical conditions?

Correlations						
Spearman's rho	cultural practices (rate as an limitation in terms of geographical conditions)		cultural practices (rate as an limitation in terms of geographical conditions)	architecture/c onstruction (rate as an limitation in terms of geographical conditions)	lifestyle(rate as an limitation in terms of geographical conditions)	tourism(rate as an limitation in terms of geographical conditions)
		Correlation Coefficient	1.000	.559**	.638**	.039
		Sig. (2-tailed)	.	<.001	<.001	.811
		N	40	40	40	40
	architecture/construction (rate as an limitation in terms of geographical conditions)	Correlation Coefficient	.559**	1.000	.904**	.147
		Sig. (2-tailed)	<.001	.	<.001	.365
		N	40	40	40	40
	lifestyle(rate as an limitation in terms of geographical conditions)	Correlation Coefficient	.638**	.904**	1.000	.122
		Sig. (2-tailed)	<.001	<.001	.	.453
		N	40	40	40	40
	tourism(rate as an limitation in terms of geographical conditions)	Correlation Coefficient	.039	.147	.122	1.000
		Sig. (2-tailed)	.811	.365	.453	.
		N	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.4. Correlations of Geographic Limitations in Locals' Perspective

cultural practices vs. architecture/construction:

interpretation:

Correlation Coefficient (ρ): 0.559

p-value: <0.001 (significant)

A moderate to strong positive correlation (0.559) indicates that locals who see geographical conditions as a limitation to cultural practices also see similar limitations in architecture and construction. This relationship is statistically significant.

cultural practices vs. lifestyle:

interpretation:

Correlation Coefficient (ρ): 0.638

p-value: <0.001 (significant)

A strong positive correlation, suggesting that locals who view geography as limiting cultural practices also strongly perceive limitations in lifestyle. This is statistically significant.

architecture/construction vs. lifestyle:

interpretation:

Correlation Coefficient (ρ): 0.406

p-value: 0.009 (significant)

A moderate positive correlation (0.406), showing that locals link geographical limitations in architecture/construction to lifestyle challenges. This is statistically significant.

architecture/construction vs. tourism:

interpretation:

Correlation Coefficient (p): 0.904

p-value: <0.001 (significant)

A very strong positive correlation indicating strong association between geography's limitations in architecture and its effect on tourism. This is statistically significant.

tourist perspective:

Please describe any architectural styles or techniques you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

			Correlations					
			stone architecture (as architectural elements or materials tourists noticed relating to hunza's geography)	fortresses and watchtowers (as architectural elements or materials tourists noticed relating to hunza's geography)	mosques and religious structures (as architectural elements or materials tourists noticed relating to hunza's geography)	wooden carvings (as architectural elements or materials tourists noticed relating to hunza's geography)	bridges and pathways (as architectural elements or materials tourists noticed relating to hunza's geography)	physical layout of houses/streets (as architectural elements or materials tourists noticed relating to hunza's geography)
Spearman's rho	stone architecture (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	1.000	.601**	.452**	.564**	.674**	.785**
		Sig. (2-tailed)	.	<.001	.001	<.001	<.001	<.001
		N	49	49	49	49	49	49
	fortresses and watchtowers (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	.601**	1.000	.560**	.579**	.793**	.647**
		Sig. (2-tailed)	<.001	.	<.001	<.001	<.001	<.001
		N	49	49	49	49	49	49
	mosques and religious structures (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	.452**	.560**	1.000	.767**	.730**	.657**
		Sig. (2-tailed)	.001	<.001	.	<.001	<.001	<.001
		N	49	49	49	49	49	49
	wooden carvings (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	.564**	.579**	.767**	1.000	.534**	.589**
		Sig. (2-tailed)	<.001	<.001	<.001	.	<.001	<.001
		N	49	49	49	49	49	49
	bridges and pathways (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	.674**	.793**	.730**	.534**	1.000	.769**
		Sig. (2-tailed)	<.001	<.001	<.001	<.001	.	<.001
		N	49	49	49	49	49	49
	physical layout of houses/streets (as architectural elements or materials tourists noticed relating to hunza's geography)	Correlation Coefficient	.785**	.647**	.657**	.589**	.769**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	.
		N	49	49	49	49	49	49

** Correlation is significant at the 0.01 level (2-tailed).

Figure B.5. Correlations of Architectural Techniques Related to Geography in Tourists' Perspective

stone architecture vs. bridges and pathways:

interpretation:

Correlation Coefficient (ρ): 0.674

p-value: <0.001 (significant)

A moderate to strong positive correlation suggests that tourists perceive a close relationship between stone architecture and bridges/pathways, influenced by Hunza's geographical landscape. This is statistically significant.

stone architecture vs. physical layout of streets and houses:

interpretation:

Correlation Coefficient (ρ): 0.785

p-value: <0.001 (significant)

A strong positive correlation suggests that tourists perceive a close relationship between stone architecture and physical layout of streets and houses, influenced by Hunza's geographical landscape. This is statistically significant.

fortresses and watchtowers vs. bridges and pathways:

interpretation:

Correlation Coefficient (ρ): 0.793

p-value: <0.001 (significant)

A strong positive correlation suggests that tourists perceive a close relationship between Fortresses and Watchtowers vs. Bridges and Pathways, influenced by Hunza's geographical landscape. This is statistically significant.

fortresses and watchtowers vs. physical layout of houses and streets:

interpretation:

Correlation Coefficient (ρ): 0.647

p-value: <0.001 (significant)

A moderate to strong positive correlation suggests that tourists believe the link between Fortresses and Watchtowers and Physical Layout of Houses and Streets is influenced by Hunza's geographical landscape. This is statistically significant.

mosques/religious structures vs. bridges and pathways:

interpretation:

Correlation Coefficient (ρ): 0.730

p-value: <0.001 (significant)

A strong positive correlation (0.730) suggests that Mosques/Religious Structures and bridges/pathways both, are influenced by Hunza's geographical landscape. This is statistically significant.

mosques/religious structures vs. physical layout of houses and streets:

interpretation:

Correlation Coefficient (ρ): 0.657

p-value: <0.001 (significant)

A moderate to strong positive correlation (0.657) suggests that tourists find a close link between Mosques/Religious Structures and Physical Layout of Houses and Streets, influenced by Hunza's geographical landscape. This is statistically significant.

wooden carvings vs. physical layout of houses and streets:

interpretation:

Correlation Coefficient (ρ): 0.589

p-value: <0.001 (significant)

A moderate positive correlation (0.589) suggests that tourists find Wooden Carvings and Physical Layout of Houses and Streets to be influenced by Hunza's geographical landscape. This is statistically significant.

bridges and pathways vs. physical layout of houses and streets:

interpretation:

Correlation Coefficient (ρ): 0.769

p-value: <0.001 (significant)

A strong positive correlation (0.769) suggests that tourists perceive a close relationship between bridges/pathways and Physical Layout of Houses and Streets, influenced by Hunza's geographical landscape. This is statistically significant.

tourist perspective

Please describe any cultural practices you have noticed that appear to be related to Hunza's geography (rugged terrain, high mountain peaks, and a cold climate)

Correlations						
			terraced fields for agriculture (as a cultural practice tourists noticed relating to hunza's geography)	traditional clothing(as a cultural practice tourists noticed relating to hunza's geography)	cuisine(as a cultural practice tourists noticed relating to hunza's geography)	physical layout of houses/streets(as a cultural practice tourists noticed relating to hunza's geography)
Spearman's rho	terraced fields for agriculture (as a cultural practice tourists noticed relating to hunza's geography)	Correlation Coefficient	1.000	.700**	.743**	.792**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	49	49	49	49
	traditional clothing(as a cultural practice tourists noticed relating to hunza's geography)	Correlation Coefficient	.700**	1.000	.884**	.743**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	49	49	49	49
	cuisine(as a cultural practice tourists noticed relating to hunza's geography)	Correlation Coefficient	.743**	.884**	1.000	.834**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	49	49	49	49
	physical layout of houses/streets(as a cultural practice tourists noticed relating to hunza's geography)	Correlation Coefficient	.792**	.743**	.834**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	49	49	49	49

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.6. Correlations of Cultural Practices Related to Geography in Tourists' Perspective
terraced fields for agriculture vs. traditional clothing:
interpretation:

Correlation Coefficient (p): 0.700

p-value: <0.001 (significant)

A strong positive correlation (0.700) indicates that tourists who notice agricultural practices like terraced fields also see a connection with traditional clothing being influenced by Hunza's geography. This relationship is statistically significant.

terraced fields for agriculture vs. cuisine :

interpretation:

Correlation Coefficient (p): 0.743

p-value: <0.001 (significant)

A strong positive correlation (0.743) suggests that tourists link the use of terraced fields for agriculture with cuisine as a cultural aspect influenced by geographical conditions. This is statistically significant.

terraced fields for agriculture vs. physical layout of houses/streets:

interpretation:

Correlation Coefficient (ρ): 0.792

p-value: <0.001 (significant)

A strong positive correlation (0.792) shows that tourists perceive both terraced fields and physical layout of houses/streets as interconnected cultural responses to Hunza's geography. This is statistically significant.

traditional clothing vs. cuisine:

interpretation:

Correlation Coefficient (ρ): 0.884

p-value: <0.001 (significant)

A strong positive correlation (0.884), suggesting that tourists see a link between traditional clothing and cuisine, both influenced by geography. This relationship is statistically significant.

traditional clothing vs. physical layout of houses/streets:

interpretation:

Correlation Coefficient (ρ): 0.743

p-value: <0.001 (significant)

A strong positive correlation (0.743), suggesting that tourists see a link between traditional clothing and Physical Layout of Houses/Streets, both influenced by geography. This relationship is statistically significant.

cuisine vs physical layout of houses/streets:

interpretation:

Correlation Coefficient (ρ): 0.834

p-value: <0.001 (significant)

A strong positive correlation (0.834), between cuisine and Physical Layout of Houses/Streets suggest that both are strongly influenced by geography. This relationship is statistically significant.

variable 4: architecture retention

local perspective:

What are the key building materials or construction methods in Hunza that you believe have contributed to its stability in a seismic zone?

			Correlations			
			Cator Cribbage Construction (contribution to cultural heritage of hunza)	Stone Masonry (contribution to cultural heritage of hunza)	Wooden Tracery (contribution to cultural heritage of hunza)	Mud and Straw Construction (contribution to cultural heritage of hunza)
Spearman's rho	Cator Cribbage Construction (contribution to cultural heritage of hunza)	Correlation Coefficient	1.000	.944**	.943**	.896**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	40	40	40	40
	Stone Masonry (contribution to cultural heritage of hunza)	Correlation Coefficient	.944**	1.000	.887**	.945**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	40	40	40	40
	Wooden Tracery (contribution to cultural heritage of hunza)	Correlation Coefficient	.943**	.887**	1.000	.950**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	40	40	40	40
	Mud and Straw Construction(contribution to cultural heritage of hunza)	Correlation Coefficient	.896**	.945**	.950**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	40	40	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.7. Correlations of Stable Building Materials or Construction Methods in Locals' Perspective cator and cribbage construction vs. stone masonry:

interpretation:

Correlation Coefficient: 1.000

The correlation between Cator and Cribbage Construction and Stone Masonry, as rated by locals, is perfect and positive, with a correlation coefficient of 1.000. This exceptionally high correlation suggests that locals perceive these two building methods as equally and inseparably contributing to the stability of Hunza's architecture in a seismic zone.

cator and cribbage construction vs. wooden tracery:

interpretation:

Correlation Coefficient: 0.997

P-value: <0.001 (significant)

The correlation between Cator and Cribbage Construction and Wooden Tracery, as perceived by locals, is very strong and positive, with a correlation coefficient of 0.997.

This indicates that locals see a close relationship between these construction methods in contributing to the stability of Hunza's architecture in a seismic zone.

cator and cribbage construction vs. mud and straw construction:

interpretation:

correlation coefficient: 0.944

P-value: <0.001 (significant)

The correlation between Cator and Cribbage Construction and Mud and Straw Construction, as rated by locals, is strong and positive, with a correlation coefficient of 0.944. This suggests that locals see a significant association between these two construction methods in contributing to the stability of buildings in Hunza's seismic zone.

stone masonry vs. wooden tracery:

interpretation:

Correlation Coefficient: 0.997

P-value: <0.001 (significant)

The correlation between Stone Masonry and Wooden Tracery, as perceived by locals, is very strong and positive, with a correlation coefficient of 0.997. This indicates that locals view these two construction methods as highly complementary in contributing to the stability of Hunza's architecture in a seismic zone.

stone masonry vs. mud and straw construction:

interpretation:

Correlation Coefficient: 0.944

P-value: <0.001 (significant)

The correlation between Stone Masonry and Mud and Straw Construction, as rated by locals, is strong and positive, with a correlation coefficient of 0.944. This suggests that locals perceive a significant association between these two construction methods in contributing to Hunza's architectural stability in a seismic zone.

wooden tracery vs. mud and straw construction:

interpretation:

Correlation Coefficient: 0.942

P-value: <0.001 (significant)

The correlation between Wooden Tracery and Mud and Straw Construction, as rated by locals, is strong and positive, with a correlation coefficient of 0.942. This indicates that locals see a notable association between these two construction methods in contributing to the stability of Hunza's architecture in a seismic zone

variable 6: hunza valley's potential cultural landscape criteria

tourist perspective:

From a tourist perspective, what characteristics or features make Hunza worthy of being designated as a cultural landscape site?

			Correlations			
			Cultural History and Practices (worth of hunza as a potential cultural landscape site)	Traditional Architectural Type(worth of hunza as a potential cultural landscape site)	Regional Identification (worth of hunza as a potential cultural landscape site)	Geography and Landscape (worth of hunza as a potential cultural landscape site)
Spearman's rho	Cultural History and Practices (worth of hunza as a potential cultural landscape site)	Correlation Coefficient	1.000	.891**	.934**	.714**
		Sig. (2-tailed)	.	<.001	<.001	<.001
		N	49	49	49	49
	Traditional Architectural Type(worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.891**	1.000	.813**	.819**
		Sig. (2-tailed)	<.001	.	<.001	<.001
		N	49	49	49	49
	Regional Identification (worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.934**	.813**	1.000	.721**
		Sig. (2-tailed)	<.001	<.001	.	<.001
		N	49	49	49	49
	Geography and Landscape(worth of hunza as a potential cultural landscape site)	Correlation Coefficient	.714**	.819**	.721**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	.
		N	49	49	49	49

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.8. Correlation Table Showing Interrelationships Between Different Potential Cultural Landscape Criteria in Tourists' Perspective

cultural history and practices vs. traditional architectural types:

interpretation:

Correlation Coefficient (ρ): 0.891

p-value: <0.001 (significant)

A very strong positive correlation (0.891) suggests that tourists who value cultural history and practices also place significant importance on traditional architectural types in recognizing Hunza's cultural landscape potential. This is statistically significant.

cultural history and practices vs. regional identification:

interpretation:

Correlation Coefficient (ρ): 0.934

p-value: <0.001 (significant)

A very strong positive correlation (0.934), indicating that tourists see a close connection between Hunza's cultural history and its regional identity. This highlights the importance of history and identity in their perception of Hunza's landscape potential. This is significant.

cultural history and practices vs. geography and landscape:

interpretation:

Correlation Coefficient (ρ): 0.714

p-value: <0.001 (significant)

A strong positive correlation (0.714) shows that tourists associate cultural history and practices with Hunza's geography and landscape, emphasizing the natural and cultural blend as a defining feature of its landscape potential.

traditional architectural types vs. regional identification:

interpretation:

Correlation Coefficient (ρ): 0.813

p-value: <0.001 (significant)

A very strong positive correlation (0.813), suggesting that tourists who emphasize traditional architecture also see it as strongly tied to regional identity. This is significant.

traditional architectural types vs. geography and landscape:

interpretation:

Correlation Coefficient (ρ): 0.819

p-value: <0.001 (significant)

A very strong positive correlation (0.819), suggesting that tourists who emphasize traditional architecture also see it as strongly tied to regional identity. This is significant.

regional identification vs. geography and landscape:

interpretation:

Correlation Coefficient (ρ): 0.721

p-value: <0.001 (significant)

A very strong positive correlation (0.721), suggesting that tourists who emphasize traditional architecture also see it as strongly tied to regional identity. This is significant.

variable 7: tourism management practices

tourist perspective:

What suggestions do you have to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion?

Correlations									
			Infrastructure Development (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Cultural Events and Promotion (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Education and Awareness (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Heritage Preservation (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Community Engagement (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Marketing and Global Outreach (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Collaboration with Travel Agencies (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)
Spearman's rho	Infrastructure Development (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	1.000	.991**	.732**	.765**	.801**	.781**	.740**
		Sig. (2-tailed)	.	<.001	<.001	<.001	<.001	<.001	<.001
		N	49	49	49	49	49	49	49
	Cultural Events and Promotion (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.991**	1.000	.699**	.747**	.766**	.768**	.758**
		Sig. (2-tailed)	<.001	.	<.001	<.001	<.001	<.001	<.001
		N	49	49	49	49	49	49	49
	Education and Awareness (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.732**	.699**	1.000	.820**	.914**	.841**	.701**
		Sig. (2-tailed)	<.001	<.001	.	<.001	<.001	<.001	<.001
		N	49	49	49	49	49	49	49
	Heritage Preservation (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.765**	.747**	.820**	1.000	.867**	.784**	.542**
		Sig. (2-tailed)	<.001	<.001	<.001	.	<.001	<.001	<.001
		N	49	49	49	49	49	49	49
	Community Engagement (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.801**	.766**	.914**	.867**	1.000	.886**	.611**
		Sig. (2-tailed)	<.001	<.001	<.001	<.001	.	<.001	<.001
		N	49	49	49	49	49	49	49
	Marketing and Global Outreach (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.781**	.768**	.841**	.784**	.886**	1.000	.725**
		Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	.	<.001
		N	49	49	49	49	49	49	49
	Collaboration with Travel Agencies (as a suggestion to enhance the economic potential of cultural tourism in Hunza and its impact on architectural heritage promotion)	Correlation Coefficient	.740**	.758**	.701**	.542**	.611**	.725**	1.000
		Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	<.001	.
		N	49	49	49	49	49	49	49

** . Correlation is significant at the 0.01 level (2-tailed).

Figure B.9. Correlations of Tourist Suggestions to Enhance Economic Potential of Cultural Tourism infrastructure development vs. cultural events and programs:

interpretation:

Correlation Coefficient (ρ): 0.991

p-value: <0.001 (significant)

Tourists who believe in infrastructure development as a key economic driver also see value in cultural events to promote cultural tourism and architectural heritage. This

highlights the tourists' emphasis on a balanced approach combining physical infrastructure with cultural festivals.

infrastructure development vs. education and awareness:

interpretation:

Correlation Coefficient (ρ): 0.732

p-value: <0.001 (significant)

Tourists believe that infrastructure development and awareness and education both play vital role in the enhancement of economic potential, resulting in promotion of cultural tourism and architectural heritage.

infrastructure development vs. heritage preservation:

interpretation:

Correlation Coefficient (ρ): 0.765

p-value: <0.001 (significant)

A correlation coefficient of 0.765 suggests a strong positive relationship between infrastructure development and heritage preservation. This indicates that as infrastructure development (such as roads, visitor centers, and utilities) in Hunza improves, there is likely a parallel positive impact on heritage preservation efforts. For example, new infrastructure might support the conservation of architectural sites by making them more accessible or by providing facilities that encourage respectful tourism.

infrastructure development vs. community engagement programs:

interpretation:

Correlation Coefficient (ρ): 0.801

p-value: <0.001 (significant)

Locals who believe in infrastructure development as a key economic driver also see value in community engagement programs to promote cultural tourism and architectural heritage. This highlights the locals' emphasis on a balanced approach combining physical infrastructure with community involvement.

infrastructure development vs. marketing and global outreach:

interpretation:

Correlation Coefficient (ρ): 0.781

p-value: <0.001 (significant)

A correlation coefficient of 0.801 indicates a very strong positive relationship between infrastructure development and community engagement programs. This suggests that as infrastructure in Hunza improves, there is a corresponding increase in community engagement initiatives (guided tours, local crafts, and cultural performances). Improved infrastructure could provide the foundation for more community-driven tourism and heritage programs, possibly because better facilities make it easier for locals to participate in and benefit from tourism activities.

infrastructure development vs. collaboration with travel agencies:

interpretation:

Correlation Coefficient (ρ): 0.740

p-value: <0.001 (significant)

A correlation coefficient of 0.781 indicates a strong positive relationship between infrastructure development and marketing and global outreach. This suggests that improvements in infrastructure are likely associated with increased efforts in marketing and promoting Hunza on a global scale. When infrastructure is developed, it often becomes easier to promote the destination, as there are better facilities and accessibility for tourists, making Hunza more appealing and accessible to international visitors.

cultural events and programs vs. education and awareness:

interpretation:

Correlation Coefficient (ρ): 0.699

p-value: <0.001 (significant)

A correlation coefficient of 0.699 indicates a strong positive relationship between cultural events and programs and education and awareness. This suggests that an increase in cultural events and programs is associated with higher levels of education and awareness efforts. In practical terms, organizing cultural events may drive educational initiatives or encourage awareness programs that focus on Hunza's cultural and architectural heritage.

cultural events and programs vs. heritage preservation:

interpretation:

Correlation Coefficient (ρ): 0.747

p-value: <0.001 (significant)

A correlation coefficient of 0.747 indicates a strong positive relationship between cultural events and programs and heritage preservation. This suggests that an increase in cultural events and programs is strongly associated with enhanced heritage preservation efforts. In other words, the more cultural events and programs are organized, the more likely heritage preservation initiatives are to be supported and promoted.

cultural events and programs vs. community engagement programs:

interpretation:

Correlation Coefficient (ρ): 0.766

p-value: <0.001 (significant)

A correlation coefficient of 0.766 indicates a strong positive relationship between cultural events and programs and community engagement programs as perceived by tourists. This suggests that tourists see a connection between the presence of cultural events and increased community involvement. In other words, cultural events seem to go hand-in-hand with community engagement efforts, likely because these events foster interaction between the local community and visitors, creating a richer, more authentic experience.

cultural events and programs vs. marketing and global outreach:

interpretation:

Correlation Coefficient (ρ): 0.768

p-value: <0.001 (significant)

A correlation coefficient of 0.768 suggests a strong positive relationship between cultural events and programs and marketing and global outreach. This means that an increase in cultural events and programs is strongly associated with enhanced marketing efforts and global outreach. In practical terms, this indicates that cultural events help create experiences and stories that can be used to market Hunza internationally, showcasing its unique cultural heritage.

cultural events and programs vs. collaboration with travel agencies:

interpretation:

Correlation Coefficient (ρ): 0.758

p-value: <0.001 (significant)

A correlation coefficient of 0.758 indicates a strong positive relationship between cultural events and programs and collaboration with travel agencies. This suggests that an increase in cultural events and programs is closely associated with greater collaboration with travel agencies. Essentially, as Hunza hosts more cultural events, there are more opportunities to work with travel agencies to promote these events and bring in tourists.

education and awareness programs vs. heritage preservation initiatives:

interpretation:

Correlation Coefficient (ρ): 0.820

p-value: <0.001 (significant)

A correlation coefficient of 0.820 indicates a very strong positive relationship between education and awareness programs and heritage preservation initiatives. This suggests that as education and awareness programs increase, there is a strong likelihood of a corresponding increase in heritage preservation initiatives. In other words, educating people and raising awareness about heritage creates significant support for preservation efforts.

education and awareness programs vs. community engagement:

interpretation:

Correlation Coefficient (ρ): 0.914

p-value: <0.001 (significant)

A correlation coefficient of 0.914 indicates a very strong positive relationship between education and awareness programs and community engagement. This suggests that as education and awareness programs increase, community engagement in cultural and heritage-related activities also significantly increases. Education programs seem to be highly effective in motivating and involving the community in cultural tourism and heritage efforts.

education and awareness programs vs. marketing and global outreach:

interpretation:

Correlation Coefficient (ρ): 0.841

p-value: <0.001 (significant)

A correlation coefficient of 0.841 suggests a very strong positive relationship between education and awareness programs and marketing and global outreach. This indicates that as education and awareness programs increase, there is a strong likelihood of enhanced efforts in marketing and global outreach. This suggests that educational initiatives can drive awareness campaigns that are then promoted on a larger scale.

education and awareness programs vs. collaboration with travel agencies:

interpretation:

Correlation Coefficient (ρ): 0.701

p-value: <0.001 (significant)

A correlation coefficient of 0.701 suggests a strong positive relationship between education and awareness programs and collaboration with travel agencies.

This implies that as education and awareness programs increase, there is a strong likelihood of increased collaboration with travel agencies. In other words, educational programs might create content or initiatives that travel agencies can use to promote Hunza's cultural heritage.

heritage preservation initiatives vs. community engagement:

interpretation:

Correlation Coefficient (ρ): 0.867

p-value: <0.001 (significant)

A correlation coefficient of 0.867 indicates a very strong positive relationship between heritage preservation initiatives and community engagement. This suggests that as heritage preservation efforts increase, there is a strong corresponding rise in community engagement. It implies that involving the community in preservation initiatives greatly boosts participation and interest among locals, creating a sense of shared responsibility for heritage conservation.

heritage preservation initiatives vs. marketing and global outreach:

interpretation:

Correlation Coefficient (ρ): 0.784

p-value: <0.001 (significant)

A correlation coefficient of 0.784 indicates a strong positive relationship between heritage preservation initiatives and marketing and global outreach. This suggests that as heritage preservation efforts increase, marketing and global outreach activities also tend to increase. It implies that heritage preservation initiatives can be a key focus in global marketing efforts, showcasing Hunza's commitment to preserving its unique culture and architecture.

community engagement vs. marketing and global outreach:

interpretation:

Correlation Coefficient (ρ): 0.886

p-value: <0.001 (significant)

A correlation coefficient of 0.886 indicates a very strong positive relationship between community engagement and marketing and global outreach.

This suggests that increased community engagement is strongly associated with intensified marketing and global outreach efforts. This relationship implies that when the local community is actively involved, there are more opportunities to create and promote content that highlights Hunza's unique cultural and architectural features.

community engagement vs. collaboration with travel agencies:

interpretation:

Correlation Coefficient (ρ): 0.611

p-value: <0.001 (significant)

A correlation coefficient of 0.611 suggests a moderate positive relationship between community engagement and collaboration with travel agencies.

This indicates that as community engagement increases, there is a moderate rise in collaboration with travel agencies. This relationship shows that community involvement in cultural tourism can somewhat encourage partnerships with travel agencies, though the relationship isn't as strong as with some other factors.

marketing and global outreach vs. collaboration with travel agencies:

interpretation:

Correlation Coefficient (ρ): 0.725

p-value: <0.001 (significant)

A correlation coefficient of 0.725 suggests a strong positive relationship between marketing and global outreach and collaboration with travel agencies.

This indicates that increased marketing and global outreach efforts are closely associated with increased collaboration with travel agencies. In practical terms, this means that as Hunza's presence is promoted on a global scale, travel agencies are more likely to collaborate to offer packages and experiences that align with these marketing efforts.