

## Sustainable development strategy for cultural heritage conservation of Hengshan cliff carving in Hunan province, people's republic of China

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**Abstract:** Stone carving is unique to the People's Republic of China (PRC) and has a long history of use. Therefore, it is the focus of research on sustainable development strategy for Hengshan Cliff Conservation carving cultural heritage calligraphy in Hunan Province, People's Republic of China. The objectives of this research are (1) to study and analyze the conservation status of the cultural heritage of the Hengshan cliff carving. (2) Analyze and synthesize sustainable calligraphy cultural heritage development strategies for the conservation of the Hengshan cliff carvings. (3) Evaluate a strategy for the development of sustainable calligraphy cultural heritage for the conservation of Hengshan cliff carvings. This study uses a combination of qualitative and quantitative research methods. Qualitative research uses literature reviews related to cultural heritage conservation and sustainable development and interviews with stakeholders. Quantitative research uses survey methods distributed to experts in the field of Hengshan cliff carving calligraphy and to site visitors. The results showed that: (1) the preservation of Hengshan cliff carving calligraphy cultural heritage today has challenges and opportunities that have significant strengths and weaknesses. (2) The analysis and synthesis of sustainable development strategies on the key issues of environmental protection, preservation of cultural values, community participation, and policy support are important for the formulation of effective conservation strategies. (3) A sustainable development strategy is formulated and evaluated based on the indicators identified in the strategic area, including recommendations for improving conservation practices. However, from the questionnaires and 404 sets of samples collected, as well as interviews with experts and related parties, it can be summarized in an overview of various dimensions. The strength dimension was determined to be the average and standard deviation (4.48±0.43). The weak dimension has an average and standard deviation (4.48±0.44). The second-highest opportunity dimension was averaged and the standard deviation (4.40±0.44). The threat dimension was at the lowest level, with average and standard deviations (4.30±0.52). This indicates that respondents generally believe that the cultural heritage of Hengshan Cliff calligraphy is balanced in terms of strengths and weaknesses and that there are still opportunities for improvement, but the threats faced should not be ignored.

**Keywords:** Challenges, Conservation, Cultural heritage, Hengshan cliff Inscriptions, Opportunities.

### 1. Introduction

Hengshan Mountain cliff inscriptions are a valuable cultural heritage that offers profound insights into ancient artistic skills, historical contexts, and archaeological knowledge. These inscriptions serve as important resources in the fields of art, history, sociology, and archaeology, revealing technological advancements, ancient lifestyles, and cultural influences, including Buddhism and ethnic minority traditions [1]. Furthermore, the conservation of these carvings supports sustainable development by maintaining cultural identity, promoting global cultural exchange, and fostering tourism [2]. As key tourism assets, they contribute to local economic growth, create employment, and align with the

Sustainable Development Goals (SDGs) of economic growth and community well-being [3]. In conclusion, the Hengshan cliff inscriptions are essential for preserving human cultural heritage, advancing academic studies, and promoting social development. The union of the Six Kingdoms by Emperor Qin Shihuang, the stone monument, was erected during an East tour to consolidate power and political success. These stone monument carvings not only show the political will of the Qin Empire, but also affirm cultural control and integration along the border. Later, during the Han Dynasty, when the empire was stable and culture flourished, stone carving reached its peak. This period presents a variety of tomb and cliff inscriptions. Through carving stone inscriptions, Han is famous for its artistic refinement and exquisite calligraphy. Similarly, the stone inscriptions of Zhang Qian are evidence for the study of the society, culture, and law of the Han people.

However, historically, China saw the boom of the Tang Dynasty, which was an unprecedented cultural peak in the art of stone carving. Inspired by Buddhism. The important Buddhist carvings in Chinese history are the Longmen Cave and the Yungang Cave. It demonstrates excellent carving skills and reflects the religious beliefs and spiritual pursuits of the Tang society. During the Ming and Qing dynasties, when society changed and technology advanced, stone carving was widely practiced throughout the country. Whether it is a royal commemorative inscription or a local gazette, it has reached an unparalleled artistic level and scale. In particular, the preservation and collection of stone carvings have preserved many historical documents for the new generation. At present, it has become an important source for the study of the political, cultural, and social lives of the Ming and Qing dynasties. In general, the art of Chinese stone carvings has a living history. Similarly, each stone carving has served as a dialogue in the past. These carvings show the diverse nature of ancient Chinese society through their unique art forms. It is also important for modern scholars to study and understand ancient China, from ancient stone paintings to imperial inscriptions, as well as temple carvings to folk inscriptions. These stone carvings show the glorious culture and civilization of China. Therefore, Hengshan cliff carvings are a treasure in the art of stone carving, not only providing rich historical and cultural information but also attracting countless scholars and tourists with its unique calligraphy charm. The carvings scattered throughout Hengshan's major scenic spots have become important evidence for the study of religion, literature, calligraphy, and historical changes in China.

According to the "Law of the People's Republic of China on the Protection of Cultural Relics". Stone carving is classified as "temples, caves, and stone carvings, along with ancient sites, tombs, buildings, important modern historical sites, and representative buildings. It is classified as an immovable cultural relic (State Council of the People's Republic of China 2017). The cultural heritage of cliff-carving calligraphy is a spectacular gem embedded in a steep cliff. These carvings are not just a combination of stone and ink but are the artistic treasures of ancient stone inscriptions and calligraphy carvings that are timeless. The strokes and notches in these carvings are the sum of the great changes and provide a sense of the culture of the era. Cliff carvings are not only a great chapter in art history, but also a fossil of living history. The use of stones as paper and chisels as brushes illustrates the unique style and evolutionary path of calligraphy during various dynasties. It also reflects the long tapestry of ancient Chinese society. Each stone carving is a window into the ancient world, allowing us to see the wisdom and emotions of that era and appreciate the profundity of traditional Chinese culture [4]–[5]. Figure 1 (a) shows the cliff rock carvings in the form of Buddhist beliefs (b) shows the large mountain calligraphy carvings in the scenic area. However, from the picture it is a display of a sustainable cultural heritage for the preservation of the cliff carvings. Hengshan.



**Figure 1.**

Hengshan cliff carving calligraphy.

Source: <https://m.gys.cn/shidiao/5321369586.html>

The preservation of these valuable cultural heritage sites has become an important responsibility and mission for the younger generations. Protecting cultural heritage is not only a sign of respect for the past, but also a contribution to the future. Its social, economic, and environmental relevance in many aspects is a key component of sustainable development. Hengshan cliff carvings are therefore a historical evidence of China, with many cultural and historical values. To ensure that these cultural resources can be inherited and appreciated by the next generation, a systematic approach is needed to analyze and address these conservation challenges. The SWOT style analysis method is one way that can systematically show the strengths, weaknesses, threats, opportunities, and challenges faced in Hengshan cliff carving. This analysis will allow for the identification of key areas of conservation work, improvements, preventive measures, identification of potential partners, and exploration of funding sources for further formulation of possible development strategies. However, the implementation of the United Nations Sustainable Development Goals (SDGs) is related to sustainable cities and communities and responsible consumption and production. Cultural heritage conservation measures can be comprehensively understood and implemented. These goals can encourage the development of local economies, create decent job opportunities, and foster world-level cooperation related to cultural heritage conservation.

Therefore, a sustainable development strategy is needed for the preservation of cultural heritage, calligraphy, and carving Hengshan cliffs in Hunan Province. Therefore, this study focused on the physical and chemical conservation of carvings. This includes increasing public awareness and appreciation of cultural heritage through studies, community engagement, and international cooperation. It also strives to find a balance that guarantees the protection and preservation of these valuable cultural heritage sites. Similarly, it also contributes to the sustainable development of local communities. In the next section, the literature review, methodology, results, discussion, and conclusions are explained.

## 2. Literature Review

Sustainable development strategy for the conservation of cultural heritage Hengshan cliff carving in the Hunan Province People's Republic of China. This research has studied and reviewed the relevant literature, focusing on theories related to the sustainable development of cultural heritage, calligraphy, and cliff carving. This review not only provides a solid theoretical foundation for research but also reveals the latest advances and experiences in the field of cultural heritage conservation worldwide.

### 2.1. Cultural Heritage

Cultural heritage refers to tangible and intangible assets of great value in terms of history, art, archaeology or humanities. These legacies provide important testimony to human history [6]. As stated in the Convention for the Protection of World Cultural and Natural Heritage Sites. "Monuments: Architecture, Sculpture and Monumental Painting Elements or structures of archaeological characteristics, inscriptions, cave dwellings and combinations of features, which have a unique universal

value from a historical point of view. The cliff carvings mentioned in this study fall under the category of inscriptions. However, cliff carvings uniquely embody both tangible and intangible cultural heritages. As a tangible cultural heritage, they are artistic treasures left by ancient craftsmen on natural stone surfaces, bearing rich historical, artistic, and scientific values that reflect the diverse aspects of ancient societies. At the same time, the transmission methods of their crafting techniques, along with embedded cultural customs and beliefs, clearly illustrate the essence of intangible cultural heritage. These carvings are not only a testament to the wisdom and skills passed down through generations of craftsmen but also serve as a vital medium for the living transmission of culture. Thus, cliff carvings are not only gems of tangible cultural heritage but are also closely linked to the inheritance and development of intangible cultural heritage [7]. This study focused on the Hengshan area, which is located in a subtropical climate zone. The weather is characterized by hot, rainy, and mild cold weather during the rainy season, with little rain. The climate in Hengshan is influenced by the terrain and elevation, which leads to vertical climate change. These climatic features pose significant challenges to the conservation of cliff carvings [8]. It is difficult to determine the exact origin of the Hengshan cliff carvings. From the available records, the origin of these carvings occurred during the Southern Dynasties. In particular, during the reign of Xiaoliang, the evidence discovered at that time was the carving of "Nantai Temple," which indicates that the carving has a history of more than 1,500 years. This carving is one of the oldest among Hengshan cliff carvings. In 2023, it was officially listed as "the first set of ancient famous inscriptions and inscriptions" by the Cultural Heritage Administration (SACH, 2023). that are listed in the prestigious catalog.

## 2.2. Characteristics of Hengshan Cliff Carvings

Hengshan cliff carvings are outstanding for their rich history. It has a wide range of content, scripts, and exquisite craftsmanship. Carving manifests in various forms, including stone inscriptions. Cliff carvings, pagoda inscriptions, and bridge pillars. The scripts shown include stamp, clerk, regular, running, and script scripts, which show the charm of Chinese art. Calligraphy and carvings are carried out with high craftsmanship, reflecting the wisdom and skills of ancient craftsmen and representing valuable Chinese culture [9]. However, according to survey data, there were more than 429 registered cliffs. Carvings from various historical periods within the Hengshan area. In 2013, these carvings were included in the seventh set of official National Key Protection Units of Cultural Relics. This study explored and examined 120 cliff carvings in Hengshan and created a distribution map of the carvings in different areas. Figure 2 shows some of the carvings from surveys and inspections in different areas.



**Figure 2.**  
Statistical table of Hengshan cliff carvings.

Picture 2. The cliff carvings of Hengshan Mountain show the beauty and continuity of history during different periods, which is a unique cultural treasure. These carvings began to date back to spring, autumn, and wars. The stormy period of the Northern and Southern Dynasties. Prosperity during the Songyuan and Ming dynasties peaked during the Qing Dynasty. These artistic and cultural influences have passed down to the present day. In particular, the period before and during the Tang



Dynasty marks the flourishing foundation of the development of Hengshan face carving. Although times have changed, the three precious carvings from that era, the "Yu Inscription" from the Spring and Autumn and War Periods, are covered with ancient legends, the carving "Nantai Temple" from the Southern Dynasty, which testifies to the prosperity of religious culture, and the "Ji Gao Ming" inscription by Li Bi of the Tang Dynasty, reflecting the noble ideals and breadth of the sculptor.

Later, in the Song and Yuan dynasties, there was a golden age for the development of cliff carving. Hengshan, according to the survey, excluding unregistered inscriptions, has at least 41 carvings from the Song and Yuan dynasties, with 35 pieces from the Song Dynasty and 6 pieces from the Yuan Dynasty, a significant increase in the number of carvings during that period. It is closely linked to the specific political and cultural context of the time. The Song Dynasty, known for its emphasis on culture rather than militarism, saw an unprecedented increase in the social status of scholars and officials. These literary figures not only have important political contributions but also cultural and artistic talents. Sightseeing scenic spots, composing poems, and carving inscriptions have become important activities among literary gatherings. As Zhu Jianxin noted in "Epigraphy Studies," "Of the available inscriptions, most of them are from the Song Dynasty. More than the revered works of the Tang family" during the Southern Song Dynasty. Political centers moved south, and many scholars and officials emigrated south. Many people are fascinated by the beauty of the mountains. Hengshan with precious cliff carvings that have become a precious cultural heritage for the next generation.

### 2.3. Sustainable Development Strategies

Sustainable development is a comprehensive concept in economic development. Social and environmental Factors The goal is to meet today's needs without compromising the ability of future generations to meet their own needs. The report defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" [10]. This concept emphasizes balance and long-term survival in the development process, striving for harmony among economic growth, social progress, and environmental protection [11]. In the field of cultural heritage conservation, sustainable development strategies refer to those that define and implement the principles of economic sustainability. Social and environmental. To ensure the long-term conservation and utilization of cultural heritage. These strategies focus on the physical protection and restoration of cultural heritage. Increase the socioeconomic benefits of heritage resources while retaining their value. Hengshan cliff carving calligraphy cultural heritage has defined these strategies and it is necessary to take into account the uniqueness of this cultural heritage as well as the specific challenges it faces in particular.

Hengshan cliff carving calligraphy is an important cultural heritage of Hunan Province, not only has important historical and artistic value. It also embodies various cultural connotations and local cultural identities. Ensuring sustainable conservation and transmission of this precious heritage is essential. Therefore, it recommends and implements conservation strategies in line with the principles of sustainable development. The main indicators of sustainable development strategy in the preservation of cultural heritage and cliff carving. Hengshan reflects the following:

(1) *Economic benefits*: The preservation and utilization of Hengshan cliff carving calligraphy should contribute to local economic development. In particular, it promotes cultural tourism, creates job opportunities, and attracts investment [12]. Hengshan. Similarly, it can attract more tourists, increase local economic income, and stimulate growth in the related service industry [13].

(2) *Social benefits*: Preservation of the Hengshan cliff carving calligraphy should promote social harmony and progress. Conservation efforts have increased public awareness and understanding of cliff carvings. It also strengthens local cultural identity and community harmony through education and community engagement [14]. Collaborating with local schools and communities to promote the education and cultural transmission of cliff-carving calligraphy can achieve broad social benefits.

(3) *Environmental benefits*: The process of conservation and utilization of Hengshan [15]. Controlling the number of visitors and reducing environmental pollution are ways to achieve environmental benefits [16]. These measures not only protect the physical condition of the cliff carvings, but also preserve the surrounding natural ecological environment.

(4) *Management and Governance*: An effective management and governance structure are essential for sustainability. Cultural Heritage Conservation Hengshan Cliff Carving [17]. This involves the formulation and associated execution. Policies and regulations for stakeholder engagement and transparent decision making. The establishment of collaborative mechanisms by multiple stakeholders, including governments, experts, local communities, and NGOs, can help strengthen the coordination and effectiveness of conservation efforts.

(5) *Promotion of cultural values and innovation*: The protection of Hengshan cliff carving calligraphy should not focus only on physical shapes. Therefore, it is necessary to include the preservation and transmission of natural cultural values [18]. This requires innovative approaches and methods, such as the application of digital technology to document and show the details of cliff-carving calligraphy. as well as cross-cultural exchanges and collaborations to enhance the dynamism and vitality of cliff calligraphy carving in Hengshan [19].

#### 2.4. SDGs and Hengshan Cliff Carving Calligraphy Cultural Heritage

The United Nations Sustainable Development Goals (SDGs) provide a comprehensive framework for promoting sustainable development in the social dimension. Global Economy and Environment. The SDGs not only highlight the need to protect cultural and natural heritage but also suggest the possibility of exploiting cultural heritage to promote sustainable development. Goals 8 and 17 of the SDGs are of special importance for the cultural heritage of Hengshan cliff carving calligraphy. However, for both goals, the details are as follows.

(1) Goal 8: Promote Inclusive and Sustainable Economic Growth, Employment, and Decent Work. Goal 8 focuses on promoting inclusive and sustainable economic growth and providing affordable employment opportunities for all [20]. Hengshan cliff carvings, cultural heritage sites, and calligraphy are important cultural tourism resources in Hunan. This can effectively contribute to the sustainable development of the local areas. Building an economy through its unique historical value and cultural appeal. The conservation and utilization of Hengshan cliff carving calligraphy has significantly promoted the development of local tourism. Tourism is one of the fastest growing issues in the country, and the global economic sector plays an important role in driving economic growth and employment [21]. Developing cultural tourism products related to cliff carvings, such as tour guides, cultural experience programs, calligraphy art, and exhibitions. Recently, cultural tourism has become a form of in-depth tourism. These attractions allow visitors to deeply understand and experience the local history and culture. This is a significant market opportunity for calligraphy carving. Hengshan [22]. (Timothy & Boyd, 2006). Similarly, the conservation and sustainable use of carved cliffs and cultural heritage calligraphy can generate significant employment. Opportunities for cultural heritage conservation require skilled professionals, historians, and cultural heritage managers.

A review of the literature and related research on sustainable development strategies for cultural heritage, calligraphy, and cliff carving. It is based on a literature review that covers cultural heritage issues and the characteristics of cultural heritage. In particular, the heritage of calligraphy and cliff carvings. Along with the analysis and assessment of the current state of the Hengshan cliff carving calligraphy heritage using sustainable development strategies based on concepts related to sustainable development. including the context of calligraphy heritage and cliff carving. Theory of Cultural Heritage Protection Strategy and Application of Sustainable Development Strategy in Cultural Heritage Protection. These findings offer a comprehensive theoretical basis for protecting the heritage of cliff carvings. This also serves as a reference for the development of protection strategies for similar cultural heritage sites.

### 3. Methodology

Sustainable Development Strategy for Cultural Heritage Conservation Hengshan Cliff Carving in Cultural Heritage in Hunan The objectives are as follows: (1) to study and analyze the conservation status of the cultural heritage of the Hengshan cliff carving. (2) Analyze and synthesize sustainable calligraphy cultural heritage development strategies for the conservation of the Hengshan cliff carvings.

(3) Evaluate a strategy for the development of sustainable calligraphy cultural heritage for the conservation of Hengshan cliff carvings. The following topics are related research methodologies: the study and analysis of the conservation status of the Hengshan Cliff Carving Cultural Heritage Calligraphy, analyzing and synthesizing the indicators of sustainable development strategy for the conservation of Hengshan Cliff Carving Cultural Heritage Calligraphy, and evaluating the sustainable development strategy for the conservation of Hengshan Cliff Carving Cultural Heritage Calligraphy. The details are as follows.

### *3.1. Study and Analysis of the Status of Cultural Heritage Conservation, Calligraphy, and Hengshan Cliff Carvings*

**Research Design:** Cultural Heritage Protection, Calligraphy, Cliff Carving Hengshan This uses the assessment method through field research with analysis of strengths, weaknesses, opportunities, obstacles, as well as literature reviews to determine strengths, weaknesses, opportunities, and threats. that has impacted the heritage of Hengshan cliff carving calligraphy to develop a sustainable development strategy.

**Population and Examples:** In this study, the population for field research will focus on all carvings and inscriptions recorded in Hengshan. The study and review will cover academic documents, policy documents, and books related to the protection of cliff carvings, calligraphy, and cultural heritage. This survey targeted populations living in Hunan Province. Similarly, the samples used in this field research were from visiting cliff carvings that were visible from various viewpoints. A survey was conducted using a questionnaire with 404 participants. However, for the questionnaire, the accuracy of the questionnaire is evaluated to be consistent between the question and the objective, with the IOC value: Index of item objective congruence meeting the average standard between 0.6-0.8, which is considered acceptable. For data analysis, basic statistics were used to determine the mean and standard deviation.

**Research Tools:** In this study, cliff carvings were recorded using a data-recording format and photographed in different areas. These data will be collected and studied in depth using Google Scholar and CNKI platforms using the data for SWOT analysis.

**Data collection:** Cliff-carving calligraphy basics. Hengshan were collected through field surveys. Survey data from this questionnaire were distributed on a website. The survey design incorporated open-ended questions for each aspect. Taking into account the SWOT analysis, the strengths, weaknesses, opportunities, and threats of the Hengshan cliff carving calligraphy cultural heritage.

**Data analysis:** Basic statistics were used to analyze the field survey data of the cliff-carving calligraphy culture. Similarly, SWOT analysis aims to assess the internal strengths, weaknesses, opportunities, and threats that have an impact on the cultural heritage of cliff carving calligraphy. However, based on the collected data, descriptive analysis was used to obtain a preliminary understanding of the overall situation.

### *3.2. Analyzing and Synthesizing the Indicators of Sustainable Development Strategy for the Conservation of Hengshan Cliff Carving Cultural Heritage Calligraphy*

**Research Design:** A literature analysis method was used to systematically identify and quantify key indicators for the sustainable protection strategy of Hengshan cliff carving cultural heritage. The research design consisted of the following steps. (1) Literature selection and collection: Systematic literature searches were conducted using relevant keywords and documents related to cultural heritage protection and sustainable development obtained from academic databases. (2) Extraction and quantification of indicators: A quantitative analysis was performed in the selected literature to count the frequency of the key indicators mentioned in the prevention strategy and rank the importance of these indicators. (3) Indicator System Creation: Classify and organize indicators using quantitative analysis to form the initial core of the indicator system. (4) Indicator Monitoring and Optimization: Preliminary review and optimization of the indicator system.

**Population and examples:** For the population of this topic, the scope of study covers academic papers, government reports, policy papers and publications from international organizations related to the protection of cultural heritage. Sustainable Development Goals Calligraphy Culture Cliff Carving

Similarly, the sample used in the study selected high-quality literature from academic databases such as CNKI and Google Scholar. The literature collection used search terms such as cliff carving, cultural heritage, protection and cultural heritage, and sustainable protection. Hengshan Published before June 30, 2024. Sampling will focus on selecting particularly representative or contributing literature, such as documents with high citation rates or documents with a significant impact on cliff carving prevention strategies. The review identifies important research papers that are usually primary studies in the field. Expert advice is considered when selecting relevant literature of high value.

*Research Tools:* In reference management software was used to organize and manage the collected literature. To ensure systematic and comprehensive data management. Quantitative analysis tools use quantitative data analysis software to analyze trends and patterns in the literature for bibliographic analysis. These tools will help identify the key indicators frequently mentioned in the literature and provide statistical and visual representations.

*Data Collection:* The data collection process uses keyword selection to identify search terms, such as cultural heritage protection, sustainable development, stone carving, and cultural heritage calligraphy. Similarly, a systematic search was performed in multiple academic databases using selected keywords. It also screens and combines literature based on its relevance to the topic. Qualitative analysis uses key information from the literature, including keywords, topics, research objectives, conclusions, and key indicators. Similarly, quantitative analysis uses the extracted data for quantitative analysis.

*Data analysis:* Bibliographic analysis software was used to quantify the selected literature by counting and visualizing the frequency of the indicator. This guideline helps to identify which indicators are often mentioned and highlighted in the context of the sustainable protection of the Hengshan cliff carving calligraphy cultural heritage. Similarly, Indicator Classification and Aggregation use the organization and classification of indicators obtained from volumetric analysis with the development of key indicator systems in various golden corners, such as environmental protection, preservation of cultural values, community participation, management, and outcomes monitoring and optimization, which uses a preliminary scientific and rational examination of the key indicator system through comparative analysis. However, the indicator system can be optimized by combining research results from various sources to ensure that it can be put into practice. This research design allows for the search for key scientific and systematic indicators for strategies for the sustainable protection of cultural heritage, calligraphy, and cliff carving. This provides quantitative support and a theoretical foundation for future protection practices.

### *3.3. Evaluating the Sustainable Development Strategy for the Conservation of Hengshan Cliff Carving Cultural Heritage Calligraphy*

*Research Design:* This section presents an integrated assessment of the protection status using group interviews. Developing a sustainable development strategy for Hengshan cliff carving calligraphy cultural heritage sites An evaluation form is then used in the form of a questionnaire to evaluate the developed strategy and from the results of the evaluation the strategy is optimized.

*Population and Sample:* The population and sample in this section used strategy experts and assessment professionals who are deeply knowledgeable and highly experienced in management and strategic planning. It uses systematic methodologies and tools to help organizations define actions and evaluate strategies to achieve long-term goals and sustainable development. However, the role of a strategy specialist also includes analyzing market trends, assessing the competitive environment, identifying opportunities and threats, developing strategic plans, and monitoring and adjusting the implementation of strategies. Similarly, for the sample in this section, Fifteen strategy experts and five evaluation experts were used. Selection is performed through objective sampling, where this objective sampling is deterministic sampling, which is a sampling technique commonly used in qualitative research. This involves selecting samples with qualitative characteristics or specific criteria based on the study purpose, allowing the researcher to select individuals, groups, or case studies.

*Research Instruments:* An interview handbook was designed, and sustainable development strategies for cultural heritage, calligraphy, and cliff-carving in Hengshan were designed according to the main indicators. The Sustainable Development Strategy Evaluation Form for Cultural Heritage Hengshan



Cliff Carving Calligraphy was prepared in a questionnaire form. To ensure the quality and accuracy of the interview manual. We used the IOC content accuracy indices for evaluation. When using IOC standards, experts in the field of cultural heritage protection and calligraphy reviewed each question in the evaluation form. The five experts will evaluate these questions and reflect on the main issues of the protection of the cultural heritage of the Hengshan cliff carving calligraphy. However, it is also possible to identify which questions are highly accurate to ensure that they support reliable data for the study, which have IOC values, and the index of item objective congruence meets the mean standard between 0.6-0.8, which is considered acceptable.

*Data collection:* Strategy and evaluation experts were selected and identified based on their knowledge and experience in managing and evaluating strategies. Use potential attendees to obtain contact information through online searches, academic conferences, professional organizations, and government websites. Subsequently, an interview invitation was sent with an explanation of the purpose of the research. Prepare the assessment form and coordinate the appropriate time and place to complete it. Similarly, the recording and storage of information during the completion of the assessment form was a written and confidential recording of answers. However, prepare for data analysis and use methods of organizing and coding data, interviews, and evaluations to prepare for further qualitative analysis.

*Data analysis:* Descriptive analysis was used to analyze the interview and evaluation data. This descriptive analysis involved summarizing and explaining the basic characteristics of the data. In addition, the application of the evaluation criteria was explained. In particular, the evaluation criteria are in the form of an estimation scale (Rating Scale), which has five levels according to the Likhardt method. The evaluation criteria are as follows: Average Interpretation 4.51–5.00 Most Suitable 3.51–4.50 Very Suitable 2.51–3.50 Moderate Appropriate 1.51–2.50 Less Suitable 1.00 –1.50 Least Appropriate. Descriptive analysis is used to summarize and interpret the basic characteristics of a dataset. It shows the overall trend and distribution patterns using basic statistics to determine the mean and standard deviation. However, based on the research methodology described above, the results of the study and research can be summarized in detail in the next section.

#### 4. Results and Discussion

Research on the Development of Sustainable Protection Strategies for Hengshan Cliff Carving Cultural Heritage Sites: This research has three objectives: (1) To study and analyze the conservation status of Hengshan cliff carving cultural heritage. (2) Analyze and synthesize strategies for the development of a sustainable calligraphy cultural heritage for the conservation of cliff carvings. Hengshan. (3) Evaluate a strategy for the development of sustainable calligraphy cultural heritage for the conservation of cliff carving. Hengshan. From the objectives, the research process can be divided into three stages as follows: (1) Current protection status assessment: information on the current status of Hengshan cliff carving calligraphy cultural heritage is collected through interviews, and SWOT analysis is used to assess this information and identify strengths, weaknesses, opportunities, and threats in current prevention efforts. (2) Identification of key indicators: The literature review methodology is used to systematically review and analyze the relevant literature. The main indicators for the sustainable development of cultural heritage are separated. These indicators cover areas such as environmental protection. Cultural values Community Engagement: This theoretical basis for the later development of strategy. (3) Strategy formulation and evaluation: A specific sustainable protection strategy was formulated based on the results of the previous steps. Assessment tools were used to evaluate strategies. Expert and stakeholder opinions were used to revise and optimize strategies to ensure feasibility and effectiveness. This research methodology emphasizes a systematic and scientific approach to data collection and analysis, ensuring the reliability and practical application of the research results. This study provides clear recommendations for a sustainable development strategy for cliff carving calligraphy. However, from the three stages of the research process, a summary of the study and its findings can be described in the following sections.

Objective (1) was used to study and analyze the conservation status of the cultural heritage of cliff carving. This study focuses on all the carvings and inscriptions recorded in Hengshan. Similarly,

according to this survey, the population living in Hunan Province could be managed according to its objectives. Similarly, the sample used in the field research that came from visiting the cliff carvings using a reliable questionnaire with an IOC value of the objective consistency index of the items that met the average standard between 0.6-0.8 from cultural heritage experts, relevant government officials, tourist attraction personnel, and academic researchers specializing in stone carving, a total of 404 people who could manage according to the purpose. Similarly, from the data collected in the field, it can be used to analyze SWOT, strengths, weaknesses, opportunities, and threats to cultural heritage. Hengshan and descriptive analysis get the overall data according to the objective. However, this study involves the inscription and carving of cliffs. Therefore, 404 respondents were randomly selected from the population in Hunan Province. For this study, there were four types of respondents involved in the study: cultural heritage experts, relevant government officials, most of the respondents were personnel in tourist attractions related to cliff inscriptions. Hengshan accounted for 50.74%. Experts, government officials, and academic researchers accounted for nearly 50% of the total. The majority of respondents were between the ages of 18-60 years, accounting for 94.80%. In addition, 74.25% of the respondents were familiar with the Hengshan Cliff Inscription.

However, according to the questionnaire from the SWOT analysis, consisting of strengths, weaknesses, opportunities, and threats of cliff inscription conservation, Hengshan was designed to find the consensus level of respondents in the form of a five-point Likert scale (strongly disagree (1), disagree (2), neutral (3), agree (4), strongly agree (5)) and have a total of 28 items, including three demographics, seven strengths, six weaknesses for opportunities, and six threats. As a result, the alpha value was 0.898, which is greater than 0.7, indicating that the designed query is very accurate. In addition, descriptive statistics were used in the data analysis to determine the mean and standard deviation. Similarly, the scoring method was analyzed using a scoring criterion to determine the level of agreement for each item, as shown in Table 1.

**Table 1.**  
The rubric score of agreement level.

Level	Mean ranges
Strongly disagree	1.00-1.80
Disagree	1.81-2.60
Neither/Nor agree	2.61-3.40
Agree	3.41-4.20
Strongly agree	4.21-5.00

Objective (2) Analysis and synthesis of sustainable calligraphy cultural heritage development strategies for the conservation of Hengshan cliff carvings. Results from the literature analysis to systematically identify and quantify key indicators for the sustainable protection strategy of cliff carving cultural heritage. Hengshan found that (1) The selection and collection of literature from the systematic search can be carried out using keywords and relevant documents related to the protection of cultural heritage and sustainable development obtained from academic databases according to the purpose. (2) From the extraction and quantification of indicators, it was found that the quantitative analysis conducted using the literature to count the frequency of the main indicators in the prevention strategy and rank the importance of the indicators could be analyzed and summarized according to the requirements. (3) The creation of the indicator system also found that it is possible to classify and organize indicators using quantitative analysis to create a consistent core of the indicator system. (4) Indicator Monitoring and Optimization: It is found that the initial monitoring and optimization of the indicator system can be carried out according to the specified objectives. However, this study also found that it can cover academic documents, government reports, policy documents, and publications from international organizations related to the protection of cultural heritage. Sustainable development goals, cliff carving, calligraphy culture in its entirety. Similarly, from the samples used in the study, it was also

found that high-quality literature could be selected from the academic databases of CNKI and Google Scholar using search terms based on a given literature collection.

Objective (3) Evaluation of the sustainable development strategy of calligraphy cultural heritage for the conservation of Hengshan cliff carvings. Based on the integrated protection status assessment using group interviews, the development of a sustainable development strategy for Hengshan cliff carving, calligraphy, cultural heritage sites, and so on. It was found that the use of assessment forms in the form of questionnaires for the population and samples with strategy experts and evaluation professionals who are deeply knowledgeable and highly experienced in management and strategic planning. It can analyze trends in the competitive environment by identifying opportunities and threats and formulate strategic plans by monitoring and adjusting the implementation of the strategy according to the objectives.

However, based on statistical analysis, it was found that the strengths in the conservation of Hengshan cliff inscriptions and the average value of each item were in the range of 4.43 to 4.53, and the total average was more than 4.21, which indicates that the respondents strongly agreed that the conservation of Hengshan cliff inscriptions has some strengths in terms of academic, cultural, and educational value, aesthetic quality, support for tourist attraction policies, and the availability of related education. In addition, the standard deviation is between 0.42 and 0.45, which is consistent, indicating that the evaluation is stable. Details are presented in Table 2.

**Table 2.**  
Strengths for conservation of Hengshan cliff inscriptions.

Items	Means	SD	Level
<b>Strengths</b>			
1.1 The high value in academic research is a strength for conservation of Hengshan Cliff inscriptions	4.53	0.42	Strongly agree
1.2 The richness in culture and education is a strength for conservation of Hengshan Cliff inscriptions	4.49	0.44	Strongly agree
1.3 The unique artistic and aesthetic qualities are a strength for conservation of Hengshan Cliff inscriptions	4.44	0.42	Strongly agree
1.4 The being of a local and national cultural symbol is a strength for conservation of Hengshan Cliff inscriptions	4.49	0.42	Strongly agree
1.5 The unique cultural and sightseeing attraction is a strength for conservation of Hengshan Cliff inscriptions	4.43	0.45	Strongly agree
1.6 The support of national and local policies is a strength for conservation of Hengshan Cliff inscriptions	4.51	0.42	Strongly agree
1.7 The richness of related research studies is a strength for conservation of Hengshan Cliff inscriptions	4.49	0.43	Strongly agree

Similarly, from Table 3 if a statistical analysis of the weaknesses in the conservation of the Hengshan cliff inscriptions is used, it is found that the average value of each item ranges from 4.45 to 4.51, which all exceed 4.21. This indicates that the respondents strongly agreed with the six items listed. It also indicates a consensus that conservation efforts face significant weaknesses in areas such as financial support and incomplete regulatory specialized personnel. The integrity of documents and materials results in high maintenance costs and inadequate coordination among management agencies. In addition, a standard deviation from 0.42 to 0.45 indicates a relatively high level of consistency in the response, indicating that the evaluation is stable.

**Table 3.**

Weaknesses for conservation of Hengshan cliff inscriptions.

Items	Means	SD	Level
<b>Weaknesses</b>			
2.1 The limited financial support is a weakness for conservation of Hengshan Cliff inscriptions	4.45	0.45	Strongly agree
2.2 The limited specialized personnel are a weakness for the conservation of Hengshan cliff inscriptions	4.45	0.44	Strongly agree
2.3 The incomplete regulations and laws are a weakness for conservation of Hengshan cliff inscriptions	4.51	0.42	Strongly agree
2.4 The lack of integrity of documentary and recording materials for Hengshan Cliff inscriptions	4.48	0.44	Strongly agree
2.5 The high cost of routine maintenance is a weakness for conservation of Hengshan cliff inscriptions	4.50	0.43	Strongly agree
2.6 The Insufficient coordination among the management bodies is a weakness for conservation of Hengshan cliff inscriptions	4.46	0.44	Strongly agree

Table 4. shows the statistical analysis of the chances of preserving the cliff inscriptions. The average value of each item ranged from 4.31 to 4.47, with a total value exceeding 4.21. This indicates that the respondents strongly agreed with the six listed, demonstrating a common view that conservation efforts have significant opportunities in areas such as scientific and technological development, integration of resources, cultural tourism, and public awareness. In addition, standard deviations from 0.42 to 0.47 show a fairly consistent response pattern that indicates evaluation stability.

**Table 4.**

Opportunities for conservation of Hengshan cliff inscriptions.

Items	Means	SD	Level
<b>Opportunities</b>			
3.1 The development of modern science and technology is an opportunity for conservation of Hengshan Cliff inscription	4.31	0.47	Strongly agree
3.2 The integration of cross-sectoral resources for the cultural heritage is an opportunity for conservation of Hengshan Cliff inscription	4.42	0.43	Strongly agree
3.3 The rapid development of cultural tourism is an opportunity for conservation of Hengshan Cliff inscription	4.40	0.43	Strongly agree
3.4 The increased public awareness of cultural heritage protection is an opportunity for conservation of Hengshan Cliff inscription	4.37	0.46	Strongly agree
3.5 The increased international cooperations on cultural heritage protection is an opportunity for conservation of Hengshan Cliff inscription	4.40	0.42	Strongly agree
3.6 The Integrating cultural heritage into the curriculum in higher education is an opportunity for conservation of Hengshan Cliff inscription	4.47	0.44	Strongly agree

**Table 5.**  
Threats for conservation of Hengshan cliff inscriptions.

Items	Means	SD	Level
<b>Threats</b>			
4.1 Natural weathering is a threat for conservating Hengshan cliff inscriptions	4.32	0.51	Strongly agree
4.2 Vegetation cover and erosion is a threat for conservating Hengshan cliff inscriptions	4.32	0.51	Strongly agree
4.3 Air pollutions is threat for conservating Hengshan cliff inscriptions	4.28	0.53	Strongly agree
4.4 International competition for cultural heritage is a threat for conservating Hengshan cliff inscriptions	4.25	0.53	Strongly agree
4.5 A diminished sense of cultural identity among the younger generation is a threat for conservating Hengshan cliff inscriptions	4.35	0.51	Strongly agree
4.6 Extreme weather and climate change is a threat for conservating Hengshan cliff inscriptions	4.28	0.52	Strongly agree

Consistent with Table 5 the analysis of statistical data is related to the threat to the conservation of the Hengshan cliff inscription. The average score for each item ranged from 4.25 to 4.35, all of which were higher than 4.21. This indicates strong consensus among the respondents on the six items. In addition, a consensus was reached regarding the weather conditions. Erosion of vegetation, air pollution, and climate change are major threats to the conservation of cliff inscriptions. In addition, standard deviations ranging from 0.51 to 0.53 show a fairly consistent response pattern that indicates the evaluation stability of this study.

However, the SWOT analysis in this study is based on the preservation of cliff inscriptions. Hengshan provides a comprehensive overview of the status of efforts to conserve this important cultural heritage site. The findings revealed several key strengths, weaknesses, opportunities, and threats to the conservation process. In this discussion, we compare our results with other relevant studies in the field of cultural heritage conservation, particularly those focusing on stone inscriptions and other historical sites in China and around the world.

*Strengths in Conservation Efforts:* The findings of this study indicate that respondents strongly agree with the academic, cultural, and aesthetic value of the Hengshan Cliff Inscriptions, as well as the policy support and potential for sightseeing and tourism. The mean values for strengths, ranging from 4.43 to 4.53, are consistent with previous studies highlighting the significant cultural value of historical inscriptions and their role in education and public engagement. For instance, rock inscriptions in China, such as those found in the Longmen Grottoes and Dunhuang, are regarded as crucial for their historical and educational value. Similarly, policy support has been recognized as a key factor in conservation in other research, which noted that government initiatives such as the "Cultural Heritage Protection Law" have contributed to raising the profile of cultural heritage sites in China. Moreover, the fact that the respondents highlighted the aesthetic qualities of the inscriptions aligns with findings from other studies, which argued that aesthetic value plays a critical role in motivating conservation efforts, especially when combined with tourism. However, while these strengths are widely recognized in the literature, it is important to note that the challenge lies in translating this cultural and aesthetic appreciation into sustained conservation actions, particularly when resources are limited.

*Weaknesses in Conservation Efforts:* The weaknesses identified in this study, particularly in areas such as financial support, specialized personnel, incomplete regulations, and high maintenance costs, resonate with the broader challenges in heritage conservation discussed in the literature. Studies on rock art preservation also emphasize that insufficient funding and expertise are key barriers to effective conservation of cultural heritage sites in China. International research has also been conducted on the conservation of rock inscriptions. on the preservation of rock paintings in the Middle East underscores



the role of inadequate documentation and the lack of standardized regulations in hindering preservation efforts. The respondents' agreement on these issues in the current study reflects widespread recognition of these obstacles in both Chinese and global contexts. Furthermore, findings regarding the high cost of routine maintenance are particularly relevant in the context of the broader literature on conservation economics. suggests that, while there is significant recognition of the importance of preserving cultural heritage, the financial burden of ongoing maintenance remains a significant challenge for many historical sites. The lack of comprehensive regulations and the fragmented nature of management bodies noted in this study also mirror the issues identified, who pointed to the lack of integrated governance in the management of cultural heritage sites in China.

*Opportunities for Enhancement:* In terms of opportunities, this study identifies scientific and technological advancements, resource integration, cultural tourism, and public awareness as key factors that could improve conservation efforts. These opportunities align closely with global trends in the field of heritage conservation, where digital technologies such as 3D scanning and virtual reality are increasingly being used to document and preserve cultural heritage. For example, the application of digital preservation techniques at sites such as the Mogao Caves in Dunhuang has been widely documented in recent studies, and these technologies are being explored for the conservation of rock inscriptions worldwide. The role of cultural tourism as an opportunity is also supported by existing literature. Studies have highlighted the potential for integrating tourism into conservation strategies. They argued that well-managed tourism can provide the financial support necessary for the upkeep of heritage sites while simultaneously fostering public awareness and engagement. The growing public interest in heritage conservation, as indicated by the respondents of this study, reflects a larger global trend in which public awareness is crucial for sustainable conservation practices. However, although these opportunities are promising, they must be managed carefully. Excessive tourism or poorly planned commercialization can lead to the degradation of cultural heritage sites. Therefore, balancing tourism with preservation remains a critical challenge.

*Threats to Conservation:* The environmental threats identified in this study, natural weathering, vegetation erosion, air pollution, and climate change, are consistent with the findings of other studies on the conservation of rock art and inscriptions. For example, regarding the impact of climate change on the preservation of rock art in China, factors such as temperature fluctuations and increased rainfall are major contributors to the deterioration of cliff inscriptions. Similarly, several studies have been conducted on the conservation of petroglyphs in Indonesia. highlighted the vulnerability of rock inscriptions to natural weathering, vegetation growth, and air pollution, echoing the concerns raised by respondents in this study. Furthermore, the relatively higher standard deviation for threats (0.51 to 0.53) in this study may suggest that, while the overall recognition of these environmental threats is strong, there may be some differences in how respondents perceive their severity or immediacy. Some researchers argue that climate change is becoming an increasingly urgent threat to the preservation of cultural heritage sites in China. suggested that localized threats, such as vegetation encroachment, are more pressing in certain regions.

## 5. Conclusion

Research on Sustainable Development Strategy for Hengshan Cliff Conservation Cultural Heritage Calligraphy Carving in Hunan Province, the People's Republic of China, has set the objectives of the research in three areas: (1) to study and analyze the cultural heritage conservation status of Hengshan cliff carvings, (2) to analyze and synthesize the sustainable development strategy of calligraphy cultural heritage for the conservation of Hengshan cliff carvings, and (3) to evaluate the sustainable development strategy of calligraphy cultural heritage for the conservation of cliff carvings. Based on a study using a combination of qualitative and quantitative research methods, the qualitative research used a literature review related to cultural heritage conservation, sustainable development, and stakeholder interviews. Similarly, quantitative research uses survey methods distributed to experts in the fields of Hengshan cliff carving, calligraphy, and site visitation. The overall research results are summarized as follows: (1) The preservation of Hengshan cliff carving cultural heritage presents challenges and opportunities with

significant strengths and weaknesses. (3) The analysis and synthesis of sustainable development strategies on the key issues of environmental protection, preservation of cultural values, community participation, and policy advocacy are important for the formulation of effective conservation strategies. Sustainable development strategies are formulated and evaluated based on the indicators identified in strategic areas, including recommendations for improving conservation practices. Similarly, 404 samples were collected from the questionnaires as well as interviews with experts and related people. The strength dimension is defined as the average and standard deviation. ( $4.48 \pm 0.43$ ) Weak dimensions have mean and standard deviations ( $4.48 \pm 0.44$ ). The second highest opportunity dimension was the mean and standard deviation ( $4.40 \pm 0.44$ ). The threat dimension is at the lowest level, with an average and standard deviation ( $4.30 \pm 0.52$ ), indicating that respondents generally believe that the cultural heritage of Hengshan Cliff calligraphy is balanced in terms of strengths and weaknesses, and there are still opportunities for improvement, but the threats faced should not be ignored.

However, this study provides a detailed overview of the current state of efforts to preserve this valuable cultural heritage through analysis. The findings highlight several strengths, including the site's academic, cultural, and aesthetic value as well as its potential as a tourist attraction. However, a significant weakness in terms of financial support personnel and regulatory framework needs to be addressed. There are also outstanding opportunities to take advantage of technological advances and expand public participation in heritage conservation. Environmental threats, particularly those related to weathering and climate change, pose a significant risk to the site. Hengshan in the long term. Therefore, it is important to develop a specific conservation strategy for cliff inscriptions. Hengshan in the future. To take advantage of identified opportunities while addressing weaknesses and mitigating threats to the environment.

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### References

- [1] Zhou, Z. X. (2024). The history of Nanyue carved in stone. *Changsha: Hunan Fine Arts Publishing House*.
- [2] Zhang, G., Chen, X., Law, R., & Zhang, M. (2020). Sustainability of heritage tourism: A structural perspective from cultural identity and consumption intention. *Sustainability*, 12(21), 9199.
- [3] Henderson, K., & Loreau, M. (2023). A model of Sustainable Development Goals: Challenges and opportunities in promoting human well-being and environmental sustainability. *Ecological Modelling*, 475, 110164.
- [4] He, M. Z., & Wang, H. L. (2010). History of Huxiang calligraphy. Changsha: Hunan Fine Arts Publishing House.
- [5] He, Y. J. (2024, June 27). Yongzhou Municipal People's Congress Standing Committee's "small but nimble" legislation to protect cliff carvings. *People's Representative Daily*, 002.
- [6] Carman, J. (2015). Cultural heritage: Preservation and management. Routledge.
- [7] Huang, Y. (2023). A re-examination of Guilin stone carvings from the perspective of world cultural heritage. *Gui Studies Research*, 2, 96-107.
- [8] Ma, F., Deng, N., Song, Q., Peng, P., Tian, Y., Li, X., & Yang, R. (2020). Characteristics of climate change in Mount Hengshan from 1975 to 2015. *Hunan Forestry Science and Technology*, 4, 55-62.
- [9] Zhou, Z. X. (2024). The history of Nanyue carved in stone. Changsha: Hunan Fine Arts Publishing House.
- [10] United Nations. (1987). Report of the World Commission on Environment and Development: Our Common Future (Brundtland Report).
- [11] Drexhage, J., & Murphy, D. (2010). Sustainable development: from Brundtland to Rio 2012. United Nations

- Headquarters, New York, 2010, 9-13.
- [12] Tuan, T. H., & Navrud, S. (2008). Capturing the benefits of preserving cultural heritage. *Journal of cultural heritage*, 9(3), 326-337.
- [13] Throsby, D. (2001). *Economics and culture*. The Press Syndicate of the University of Cambridge.
- [14] Aas, C., Ladkin, A., & Fletcher, J. (2005). Stakeholder collaboration and heritage management. *Annals of tourism research*, 32(1), 28-48.
- [15] UNESCO. (2012). *World Heritage in a Sustainable Development Context*. UNESCO.
- [16] Pereira Roders, A., & Van Oers, R. (2011). Bridging cultural heritage and sustainable development. *Journal of Cultural Heritage Management and Sustainable Development*, 1(1), 5-14.
- [17] Harrison, D., & Hitchcock, M. (Eds.). (2005). *The politics of world heritage: Negotiating tourism and conservation*. Channel View Publications.
- [18] De la Torre, M. (Ed.). (2002). *Assessing the values of cultural heritage*. Getty conservation institute.
- [19] Smith, L., & Waterton, E. (2009). *Heritage, Communities and Archaeology*. Duckworth Debates in Archaeology. London: Duckworth.
- [20] United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations.
- [21] UNWTO. (2018). *Tourism and the Sustainable Development Goals – Journey to 2030*. UNWTO.
- [22] Timothy, D. J., & Boyd, S. W. (2006). Heritage tourism in the 21st century: Valued traditions and new perspectives. *Journal of heritage tourism*, 1(1), 1-16.