

SUB THEME 03

Role of Technology in Restoring Tangible and Intangible Cultural Heritage

Restoring Traditional Performing Arts through Technology: A Study of Chhau Dance-Drama and its Masks

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Abstract

The preservation of cultural heritage faces significant challenges, particularly in the context of globalization and rapid technological change. Traditional art forms, such as Chhau, a unique Indian folk dance-drama tradition from Eastern India characterized by martial arts and storytelling, are at risk of fading as modern entertainment options dominate the cultural landscape. Recognized in 2010 by UNESCO as an intangible cultural heritage of humanity, Chhau's significance necessitates urgent preservation efforts. This study addresses the critical question: How can technology facilitate the preservation and revitalization of Chhau dance-drama and its masks? By focusing on digital platforms, the research aims to demonstrate their vital role in understanding, appreciating, and disseminating the cultural narratives associated with Chhau, particularly for international audiences.

Literature Review

Intangible cultural heritage (ICH) encompasses oral traditions, performances, expressions, knowledge, and skills related to traditional crafts and festival events. It plays a crucial role in maintaining cultural diversity amidst globalization (Kico, 2018). A key safeguarding method employed by UNESCO is the storage of videos on platforms like YouTube, which enhances the accessibility of cultural practices (Pietrobruno, 2013).

Showcasing the recent videos on Chhau Artist Debashis Das' YouTube Channel as Debashis elements though, despite the exponential growth in the number of subscribers, the performances going viral are a commercial representation of Puruliya Chhau (Chattopadhyay, 2022).

Indian handicraft products are integral part of our society which have high demand in Western consumers (Jena, 2010) Additionally, online methods of research are often more attractive to participants than in-person interviews due to their convenience, efficiency, cost-effectiveness, and flexibility (Hewson, 2008). This body of literature underscores the necessity of exploring how technology can enhance the accessibility and transmission of cultural heritage.

Methods and Methodology

This study employs a qualitative approach to understand the role of technology in the preservation of Chhau dance-drama. The methodology of this study is centered around a primary source: A study on Chhau dance-drama authored by the researcher. This research serves as a comprehensive examination of Chhau dance, drawing from various online resources in both Hindi and English, including scholarly articles, digital media, and video tutorials. Key components of the methodology include:

1. **Google Books and Online Articles:** Scholarly texts were utilized to provide historical context, cultural narratives, and technical knowledge essential for documenting and understanding Chhau dance-drama.
2. **YouTube as a Learning Platform:** YouTube videos were analyzed for their instructional value, allowing practitioners to explore techniques and choreography that may not be accessible locally.
3. **Zoom Interviews:** Semi-structured interviews with Chhau dancers were conducted, primarily in Hindi, to gather qualitative insights on Chhau dance-drama. This bilingual approach enabled me to confirm the reliability of information found on foreign websites, enhancing the trustworthiness of the online resources.
4. **Social Media Platforms:** Engaging with dancers on platforms like Instagram and Facebook for discussions.
5. **Online Marketplaces:** Additionally, various online marketplace websites were explored to analyze the promotion and sale of

Chhau-related handicrafts and merchandise. These platforms provide valuable insights into how traditional art forms are marketed and perceived in contemporary settings.

The research emphasizes that these online tools significantly enhance the ability to study and engage with Chhau dance-drama, particularly for those outside its traditional geographic boundaries. An additional outcome of this study is the recognition that prior knowledge of a regional language is important for accessing a broader range of resources, thereby enriching the understanding of the art form.

Results and Discussion

Importance of Online Resources

The analysis reveals that online resources play a critical role in enriching the understanding of Chhau dance-drama. Scholarly articles provide in-depth research on the tradition's history and cultural significance, while YouTube serves as a practical platform for visual experiencing. Many dancers and enthusiasts rely on these digital tools to acquire knowledge and skills, facilitating their engagement with the art form from diverse locations. The availability of YouTube live facility allows researchers to experience live performances to update their knowledge of new techniques and elements of Chau. The study illustrates that these digital platforms significantly facilitate knowledge acquisition and community engagement, transcending

Geographical boundaries.

Impact on Research and Preservation

The research serves as a testament to the importance of online resources in preserving cultural heritage. The integration of information gathered from digital platforms has allowed for a comprehensive portrayal of Chhau dance-drama, showcasing its relevance and vibrancy. The researcher's ability to communicate in Hindi proved essential for validating information and establishing trust in the details provided by online sources.

Conclusions and Remarks

This study underscores the essential role of technology in preserving traditional art forms like Chhau dance-drama. The findings reveal that online resources significantly enhance accessibility, facilitate learning, and foster community engagement among practitioners and enthusiasts. It was demonstrated that research could be conducted without field visits due to the wealth of audio and visual archives available online. These resources enable a more comprehensive study of cultural heritage, allowing for a deeper understanding of intangible traditions.

The acknowledgment of regional language proficiency highlights the importance of diverse linguistic resources in cultural heritage research. As globalization continues to challenge cultural identities, embracing technological innovations is essential for sustaining the essence of traditional practices. Future research should further explore how digital tools can support ongoing efforts in cultural heritage preservation, ensuring that traditions like Chhau dance-drama thrive in an increasingly interconnected world.

Keywords: *Chhau Dance-drama, Cultural Heritage, Digital Media, Technology, Traditional Art Forms, Research, Masks*

References

- UNESCO. (n.d.). *Intangible Cultural Heritage*. Available at: <https://ich.unesco.org/en/> (Accessed: [20.09.2024]).
- Chattopadhyay, A. & Das, M.K. (2022). 'When Folk Meets Digital: A Study of Purulia Chhau and the Mediatization of Religion.' *Global Media Journal - Indian Edition*, 14(1), pp. [page numbers]. ISSN: 2249-5835. Available at: <https://gmj.manipal.edu/issues/July2022/> (Accessed: [23.09.2024]).
- Kico, I., Grammalidis, N., Christidis, Y., & Liarokapis, F. (2018). 'Digitization and Visualization of Folk Dances in Cultural Heritage: A Review.' *Inventions*, 3(4), pp. 72. Available at: <https://doi.org/10.3390/inventions3040072> (Accessed: [24.09.2024]).
- Kohil, N. & Trar, V.V. (2022). 'Use of Social Media in Uplifting Traditional Craft.' *Research Gate*. Available at: https://www.researchgate.net/publication/360453872_Use_of_Social_Media_in_Uplifting_Traditional_Craft (Accessed: [21.09.2024]).

- Mandy, M. (2019). 'Using Zoom Video Conferencing for Qualitative Data Collection: Perceptions and Experiences of Researchers and Participants.' *Sage Journals*. Available at: <https://journals.sagepub.com/doi/> (Accessed: [08.09.2024]).
- Pietrobruno, S. (2013). 'YouTube and the Social Archiving of Intangible Heritage.' *ResearchGate*. Available at: [https://www.researchgate.net/publication/263565445_YouTube_and_the_social_archiving_of_intangible_heritage] (Accessed: [08.09.2024]).

Digital Dastaan: Preserving the Tangible and Intangible Cultural Heritage of Indo-Pak Region through Technology

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Abstract

This paper explores the potential of digital technology in preserving the tangible and intangible cultural heritage of the Indo-Pak region, while expressing the need for such steps. It will focus on a few case studies to elaborate how these are being used and may benefit from the use of digital technology. We propose the concept of ‘Digital Dastaan’- a digital repository of cultural heritage that leverages technologies like 3D scanning, virtual reality, and artificial intelligence to preserve and showcase the region's rich cultural legacy.

Introduction

The cultural heritage of India and Pakistan is a shared treasure, yet political and geographical divides have limited access to these treasures. Cultural heritage is a vital part of our collective identity, encompassing tangible artifacts, intangible traditions, and historical sites that tell the story of human civilization. The Indo-Pak region is home to a diverse and rich cultural heritage, spanning thousands of years. It includes the earliest civilization known to man the Indus Valley sites, Mohenjo-Daro and Harappa, the pre historic petroglyphs and other evidences of human evolution along the Indus River Silk Route. In addition to Buddhist sites, Mughal architectural monuments abound in Pakistan. Museums attempt to preserve and promote the historical evidences, in form of metal ware, textile, or stone relic. However, this heritage is facing numerous threats,

including destruction, degradation, and loss due to natural disasters, human activities, and lack of preservation efforts.

The traditional crafts and cultural practices are the most fragile of heritage in this rapidly changing times. Globalization plays its role in overriding old customs and traditions. Story telling through street theatre, puppetry, and local musicians are a few of the list of vanishing intangible heritage, including folk songs in the vernacular, and local street games like kabaddi, Gilli danda, marbles etc..

Digital technology offers a promising solution to these challenges. With the continuous deepening and development of science and technology, the development of digital acquisition technology, recording technology, remote sensing technology and spatial modeling technology respectively provide a realistic basis and platform for the protection of various types of intangible and tangible cultural heritage. The role of virtual exhibitions would be to democratize access to cultural artifacts and promote cross-cultural understanding.

Literature Review

Research on such measures has been undertaken in the last few decades. A select few are mentioned here.

Florin, Butnariu et al in ‘Virtual restoration of deteriorated religious heritage objects using augmented reality technologies’, propose an approach for the virtual restoration of the religious heritage objects. The presented method is based on Augmented Reality technologies, which enable virtual restoration of the original heritage object by co-locating the reconstructed 3D virtual model with the real one. This method gives the opportunity to better perceive the damaged object. recreating heritage objects for posterity. A similar technology may be used to augment the historical sites in Pakistan as well as India.

AR and VR uses to restore and recreate in virtual from the past civilisations or architectural edifices is being used eg. the Digital Restoration of the Buddhas of Bamiyan (Afghanistan): 3D scanning and

printing recreated the destroyed monuments (Koller et al., 2018). Similarly, The Virtual Reconstruction of the Ancient City of Palmyra (Syria): VR and AR technologies recreated the destroyed city, allowing for continued study and appreciation (Moro et al., 2017)

‘A Survey of Augmented, Virtual, and Mixed Reality for Cultural Heritage’. *Journal on Computing and Cultural Heritage*, (Bekele et al, 2018) expounds that a multimedia approach to the diffusion, communication and exploitation of Cultural Heritage (CH) is a well-established trend worldwide eT here are many case studies where the use of new and combined media augments how culture is experienced.

Method and Methodology

This research will elaborate its investigation with focus on three main case studies, the National History Museum Lahore, Ajoka Theater Group, the Lahore Museum. Currently the National History Museum is the only case where digital technology is already being used to recreate virtual reality. While the Lahore Museum is at the early stage of visual documentation, having completed its Library digitalization with support from another organization, Citizens Archives Pakistan. A digital repository of Lahore's cultural heritage, featuring 3D scans and interactive exhibits is required.

The street theatre and history told through theatre has been preserved by Ajoka Theatre through more than four decades. It has archives of drama scripts, period costumes based on research as well as other artifacts used a props for their theatre performances. Another small group called ‘*Suno Kahani Meri Zubani*’ has created a story-telling and street performance group that is based on the vernacular, while preserving traditional tales of this land.

Methodology

- An inspection of existing digitization used in the cases mentioned above will be undertaken.

- Unstructured interviews of relevant personnel linked with these institutions will be conducted.
- Analysis of current mode of digitalization will be carried out while assessing the efficacy of their outreach and accessibility, as well as limitations.
- Existing technology and apps in use for various projects related to preservation and promotion of cultural heritage globally will be researched.
- An evaluation of the scope of these technologies being engaged, to preserve the tangible and intangible cultural heritage of this region will be discussed.

Based on the above mentioned finding, suggestions will be made eg :

Recreating Mohenjo-Daro and Harappa civilizations using VR and AR (3D scanning and virtual reality) would be a fantastic way to preserve and showcase Pakistan's rich cultural heritage. Here are some potential benefits:

- **Immersive experience:** Recreate the cities as they existed 4,000 years ago, allowing visitors to explore and interact with the ancient civilizations in a highly immersive environment.
- **Detailed reconstructions:** Use archaeological data and research to create accurate digital models of the cities, including buildings, streets, and artifacts.
- **Virtual tours:** Offer guided virtual tours to explore the cities, highlighting significant features, and providing insights into the daily lives of the people who lived there.

Results and Discussions

While the National History Museum showcases one specimen of VR using digital technology, the other cases are sadly deficient in this respect. 3D laser scanning is being used at the Lahore Fort renovation project and should be utilized for other such heritage sites as well. A collective platform for pooling in all the digitally preserved is the need of the day so a more efficient collaboration and innovation in preserving and disseminating cultural heritage across the globe.

Collection through crowd sourcing is recommended specially for intangible heritage elements like story telling, folk music, local customs and traditions. The creation of a digital platform framework for digitizing and preserving tangible heritage will also serve to secure and recreate intangible cultural heritage, including oral traditions, theater, music, dance, crafts, and street games. Our approach demonstrates the potential of digital technologies in preserving and promoting cultural heritage. Interactive Virtual Reality is already being engaged in the world for tourism as well as education, only one site is offering VR in Pakistan for tourism purposes.

Conclusion

Pakistan, along with its South Asian neighbouring countries, is an important part of a region that is rich in diverse culture and traditions. Times are changing rapidly and globalization is threatening to usurp indigenous cultural heritage. Digital Technology, like 3 D scanning, AR and VR offers transformative potential for cultural heritage restoration and conservation. recreate cultural experiences. The importance of preserving our shared cultural heritage cannot be undermined and steps must be taken to preserve and recreate tangible as well as intangible heritage through the help of authentic research and engaging new technology.

References

- Bekele, M. K., Pierdicca, R., Frontoni, E., Malinverni, E. S., & Gain, J. (2018). A Survey of Augmented, Virtual, and Mixed Reality for Cultural Heritage. *Journal on Computing and Cultural Heritage*, 11(2), 1-36.
- Florin, B., & Butnariu, R. (2018). Virtual restoration of deteriorated religious heritage objects using augmented reality technologies. *Journal of Cultural Heritage*, 35, 156-165.
- Koller, D., Frischer, B., & Humphreys, G. (2018). The Digital Restoration of the Buddhas of Bamiyan. *Journal of the Society for Archaeological Sciences*, 36(2), 105-115.
- Moro, M., Nannucci, D., & Tanganelli, M. (2017). The Virtual Reconstruction of the Ancient City of Palmyra. *Journal of Archaeological Science*, 40(3), 320-331.

The Impact of Traditional Economic Practices on Contemporary Markets: A Case Study on the Significance of Cultural Heritage in the Lac (Laksha) Artisanal Economy within Hapuwida Village, Matale, Sri Lanka

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Abstract

Traditional economic practices in Sri Lanka have long been intertwined with the country's rich cultural heritage, forming an integral part of its socio-economic identity. One of the most notable examples of such traditional practices is the Lac industry, which produces vibrant, hand-crafted items using local resources such as Gansuriya wood and natural lacquer dyes (Senanayake, 2017). This industry, deeply rooted in Sri Lankan history and culture, exemplifies the potential of traditional craftsmanship to contribute to the modern economy. The Lac (*Laksha*) industry, recognized as one of the 18 artisanal skills integrated into Sri Lankan culture with the advent of Buddhism, has significant socio-cultural and economic value. The main objective of this research was to examine the impact that traditional economic practices, particularly the Lac artisanal economy, have on contemporary markets with technological advancements. It further sought to explore how these traditional industries, when preserved and promoted effectively, could address some of the economic challenges currently faced by Sri Lanka. Conducted in Hapuwida Village, Matale, this case study assesses how the Lac industry not only sustains cultural heritage

but also has the potential to influence and reshape modern marketplaces through the application of traditional knowledge systems.

Literature Review

The importance of traditional industries in modern economies has been widely discussed in both economic and cultural literature. Scholars such as Weerasinghe (2018) and Silva (2019) have highlighted the resilience of these industries, particularly in rural economies, where they often form the backbone of local livelihoods. The Lac craft, introduced to Sri Lanka during the arrival of Buddhism, continues to be practiced today, demonstrating the enduring nature of this traditional art form (Weerasinghe, 2018). According to Senanayake (2017), the economic potential of traditional industries like Lac is often underexplored, despite their contributions to cultural identity, economic stability, technological advancement and global market opportunities.

Existing literature also emphasizes the relevance of integrating traditional industries into global markets. As Smith and Jones (2020) argue, traditional industries offer unique products that appeal to niche markets focused on sustainability, cultural authenticity, and craftsmanship. Furthermore, cultural heritage industries, including Lac, are viewed as essential for preserving intangible cultural heritage (Silva, 2019). This research draws on these perspectives to explore how traditional knowledge systems like the Lac industry can provide solutions to contemporary economic challenges in Sri Lanka by creating new market opportunities both locally and internationally.

Methods and Methodology

The study was conducted in Hapuwida Grama Niladhari Division in the Matale District, a region historically recognized for its involvement in the Lac industry. The research adopted a qualitative approach, utilizing both primary and secondary data collection methods. A sample equivalent to 30% of the total population of Lac artisans in Hapuwida was chosen. Purposive sampling was employed to ensure that the most knowledgeable

and experienced artisans, as well as key informants such as traditional knowledge bearers, were included in the study.

Primary data were gathered through in-depth interviews with selected fifteen participants, focusing on their experiences, the challenges they face, and their perceptions of the role the Lac industry plays in modern day technology and economy. These interviews allowed for a deep understanding of the cultural, technological and economic significance of the Lac craft. Secondary data were collected from existing literature, online sources, and government documents pertaining to traditional industries, market trends, and economic policies affecting the artisanal sector.

The analysis of primary data was carried out using narrative analysis, which helped to uncover the underlying cultural and economic narratives embedded within the Lac industry. Thematic analysis was used to examine secondary data, identifying key themes related to the sustainability, market integration, and economic viability of the Lac industry in both local and global contexts (Patton, 2015). This combination of methodologies provided a holistic understanding of the industry's current standing and future potential.

Results and Discussion

The findings of this research indicate that the Lac industry continues to hold significant cultural value in Hapuwida Village, with traditional artisans maintaining the skills and techniques that have been passed down through generations. The craftsmanship involved in the creation of Lac products remains largely unchanged, preserving the authenticity and uniqueness of this traditional art form. However, despite its cultural importance, the industry is currently facing several challenges, particularly in terms of its ability to compete in contemporary markets.

One of the primary challenges identified was the competition posed by mass-produced goods, which are often sold at lower prices than handcrafted Lac products. This price discrepancy has led to a decline in the local demand for Lac items, as consumers tend to opt for cheaper alternatives.

Artisans expressed concern over the sustainability of their craft, citing difficulties in securing consistent income due to the shrinking market for traditional handicrafts. Additionally, the younger generation in the village is less inclined to pursue the craft, viewing it as a less viable economic option compared to modern professions.

The research highlighted substantial opportunities for the Lac industry, especially within niche markets that prioritize eco-friendly and culturally significant products. There is increasing demand in international markets for handcrafted items that emphasize sustainability, environmental responsibility, and cultural authenticity. Lac products, which are made from natural materials and feature intricate designs, are well-positioned to appeal to these global consumers. Artisans who have explored digital marketing platforms and established partnerships with international buyers reported an increase in demand and higher prices for their products.

Furthermore, the research highlighted the need for government intervention to support the revitalization of traditional industries like Lac with financial and technological support while preserving the ancestral heritage. Policy measures such as financial incentives for artisans, access to training programs, and marketing support were identified as key factors in ensuring the sustainability of the Lac industry. Government initiatives aimed at promoting Sri Lankan cultural heritage could also play a crucial role in increasing the visibility of Lac products in both local and global markets. These efforts, combined with strategic marketing and branding, could help Lac artisans overcome the challenges they face in current competitive economic environment.

The study also found that integrating the Lac industry into the broader cultural heritage tourism sector could provide additional economic opportunities. By linking Lac production with tourism activities, such as craft demonstrations and workshops, the industry could attract visitors interested in experiencing authentic Sri Lankan culture. This approach has been successfully implemented in other countries, where traditional crafts

have become an integral part of the tourism experience, generating income for local artisans while promoting cultural preservation (Smith & Jones, 2020).

Conclusions and Remarks

The findings demonstrate that while the Lac industry faces significant challenges in competing with mass-produced goods, it also holds considerable potential for growth, especially in niche markets that value eco-friendly, culturally significant products. The study suggests that traditional industries like Lac can significantly contribute to solving contemporary economic challenges in Sri Lanka by utilizing their cultural roots and expanding their presence in international markets. The research underscores the importance of government support in preserving and promoting these industries, as well as the need for innovative marketing strategies that capitalize on the unique qualities of traditional crafts.

By providing a detailed socio-cultural and market analysis, this study sheds light on the potential for traditional industries to contribute to both cultural preservation and economic development. Future research could focus on the development of specific policy frameworks aimed at scaling traditional industries and enhancing their competitiveness in the global marketplace. Additionally, further exploration of the link between traditional crafts and cultural heritage tourism could provide valuable insights into sustainable economic development models for rural communities in Sri Lanka.

Keywords: *Artisanal economy, culture, handicrafts, Lac industry, sustainability, traditional economic practices*

References

- Patton, M.Q. (2015) *Qualitative research & evaluation methods: Integrating theory and practice*. 4th edn. Thousand Oaks, CA: Sage Publications.
- Senanayake, M. (2017) 'Sri Lankan artisanal industries and market integration', *Journal of Economic Anthropology*, 5(2), pp. 150-165.
- Silva, G. (2019) 'Craftsmanship and culture: The evolution of lac art in Sri Lanka', *Journal of Sri Lankan Studies*, 12(1), pp. 44-55.

- Smith, J. and Jones, P. (2020) 'Cultural heritage and market economies: The role of traditional industries in contemporary markets', *Economic History Review*, 73(3), pp. 678-697.
- Weerasinghe, P. (2018) 'Cultural sustainability in Sri Lankan artisan crafts', *International Journal of Cultural Studies*, 10(4), pp. 205-218.

An analysis of Rock Art on Livelihood and Cognition in Sri Lanka

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Abstract

Sri Lanka, is an island in the Indian Ocean and is divide into Wet and Dry Zones respectively on the basis of its rainfall pattern. According to the litreture the rock art sites has been identified and classified based in eco zones in Sri Lanka. However, the first attempt of rock art analysis was reported in 1904 by the H.C.P Bell, in Konnattegoda and Arangoda Galge in Polonnaruwa district and he observed quint outline drawings of men, animal made in white ashes by primitive people. Most of the researchers identified rock shelters according to the eco zones that scatted over the Island. The six distinct eco zones that comprise Somadeva, R cited Abeyrathne 1997 and Deraniyagala S., 2007 explicitly indicated constitute a varied arena of human and environmental interactions from prehistoric times. The material repertory of the early immigrants has been discovered from the implementiferous gravel deposits in the dry zone areas that cover the north, north-central, and south-eastern parts of the island, as he further described by Deraniyagala in 2007 explicitly indicated constitute a varied arena of human and environmental interactions from prehistoric times.

Literature Review

According to the literature Deraniyagala has divided the Sri Lankan cave paintings into many groups according on the sites' locations, artistic characteristics, historical evidence, and excavation data as below mentioned.

1. Early: Dorawaka, Nawagala, Molagoda,
2. Prehistoric: Padavigampola, Uraakanda,
3. Historical Early: Budugala, Dimbulagala,

4. In the past: Andiyagala, Billewa, Gonagolla, Mandagala,
5. Late Historic: Mudunathalawa Galge, Pihilegodagalge, Hingurana, and Gammakanda Galge

Further, Ilangasinghe. S, mentioned that the rock art dating can be identifying by using its color usage and drawing style. In addition to that there are different point of views as the Veddahs, or indigenous people, painted the caves quite recently in Sri Lanka. However, two kinds of these cave paintings do not fall within the Veddah's category, mentioned by Deraniyagala and Nandadeva explained about the research sources on rock art that shine the idea on art work and creativity, cognition , as well as the livelihood.

Different societies have different demands, and meeting all of one's basic needs is what is referred to as a living. According to Bebbington A. (2000), a livelihood is more than merely providing oneself with food, clothing, and shelter; it also entails giving one's life meaning. Cognitive anthropology provides guidance in comprehending a community's way of life. Since cultural anthropology provides this framework, cognitive anthropology describes how people think. Additionally, cognitive anthropologists studied ethnographic behavior and description. As a result, they examined human behavior using a humanistic approach rather than a scientific one. The field of cognitive anthropology studies the content of thought. The researchers required the specific ability to identify meaning and significance of pre literate people production and consumption of rock art as the mental and social representations of a context.

That ability and intuitions related to symbolisms and cognition where explain expression of a particular form of anthropological sensibility. Banerjee, R. Chakraverty, S. and Robinson, W.D, (2019) mentioned that the brain itself embodies a serial, hierarchical, often non-linear modular bucket bridge organization. This complex architecture and organization of the brain help understanding the many facets of emotion, vision, colour, memory, perception. However, rock-shelter sites in Sri Lanka provide

typical examples of emotional cues of livelihood, as they created to convey certain ideas and imaginations.

Methodology

As per the literature review, there are different arguments on dating rock art while past research mostly preferred archeological context, art form, colors and anthropological aspects. Hence this research aims to determine livelihood and cognition of selected rock arts with answering the research problem, was how livelihood and cognition symbolized in rock art?. A methodology used in this research was qualitative, content analysis of literature. Secondary data were collected for this research such as research papers, Journals and books published and analyzed published data. *Hulannuge, Bowatta Galge, Nandagala, Lihiniyagala, Magul Maha Viharaya, Billawa, Thanthirimale, Sthreepura gala kanda, Budugala, Dorawaka, Samangala, Budunge Hela, Ganegama, Kaduru pokuna, Deveniyan Kumbura, Budugala, Andiyagala, Magul Damana, Mailla Kanda Lena, Wettambu Gala, Yakinna Galge, Kurullangala, Mawaragala* were the selected research sample.

Result and Discussion

According to the data analyzed, explored that pictures represent a man who accompanying elephant. As per the archeologist Somadeva, R, 2012, mentioned regarding *Hulannuge* rock art, 'Normally the elephant has no economic value in foraging practice but the depiction of a man & elephant compound may be endowed with a meaning of social significance in the rising contemporary foraging economy.' However, riding an elephant is a skill, power or able to consider as a strength. Therefore, man who are depicting here is an extraordinary man with a great power and strength. Because, this man able to under control the elephant and who have enough body balance while riding. The enough evidence found for that when considering same pictures in other sites like *Kiri Pokuna, Billawa, Thanthirimale, Mailla Kanda Lena, Wettambugala,*

Deweniyankumbura lena.Yakinna Galge, Tharulengala, Pansal Kanda Muluthan lena,Bowatta Galge, Gira Pokunu hela.

Further, *Billawa, Malayadi Kanda, and Tharulengala* denoted stretched arms and legs where they able to balance the body. The man balanced their weight and space when on the elephant. The rider keep considerable weight of the body and looking forward straight with significant effort. Most of the cave art such as *Thanthirimale, Tharulengala, Malayadi Kanda, Mailla* represent significant poses rather than riding elephant according to the analyzing. The people tend to show their skills as they get used to animal riding confidently. The man embodied in the cave art may represent a ritual and a skill with their civil power. And the important point of view is the sense that they had on riding animals and capability of controlling them. The domestication animals are significant evidence denote by these rock art. All above cave art symbolized the civilization and animal domestication in the day today life. Animal domestication inherited in Sri Lankan society from generation to generation along with the culture, economy, and agriculture of the country. The history of animal domestication can be dated back to the ancient historical period of Sri Lanka, mostly due to its geographical location, climate, and relation with other countries. The historical importance of Sri Lankan domesticated elephants includes their utilization for religious observations as well as their use in early times as a source of timber and as war animals for various purposes. Further cattle and buffaloes have been an integral part of agriculture in Sri Lanka for centuries. They were applied chiefly in ploughing activities in the field, basically intended for paddy cultivation, and for dairy production. The native breeds of cattle, such as Sinhala cattle, are adapted to tropical climate and have remained a portent for livelihood activities in the rural areas. The buffalo is the other large domesticated animal, used especially for paddy farming where their strength and tolerance for wet mud are essential. Their milk is also an essential element

of the local diet, being specifically acquired from this animal for the preparation of curd, another favourite among the general population.

The Wettambugala site cave art below in picture clearly denote skills of the riders and their body balancing while riding the elephant and carrying decorated flags while riding elephant is significant. The linear or geometric style of image number Thanthirimale and Deveniyankumbura clearly expressed their love and affection. Hence, S. Illangasingha (2017) named a rock art in Deveniyankumbura as 'Love' where explore harmony among the couple. The picture depicts exotics as Nandadeva mentioned and the community had been used boat riding for their transportation. Some of the earliest examples of human expression are cave drawings, which provide valuable insights about predecessor's expressions emotions like joy, rage, happiness, affection, leadership, and bargaining. These ancient paintings functioned as a visual language, capturing the social and emotional dynamics of prehistoric societies dating back thousands of years.

This research focused transportation such as boat riding in Magul damana engraving that emphasizing its technological innovations, religious importance, historical relevance, and role in trade and transportation. However, Illangasinghe (2017) described that most of the cave art drawn by Veddahh community reflected their livelihood. And he explored scholar's point of view on Veddahh communities in Sri Lanka as they descended from Balangoda man. Accordingly, Deveniyankumbura reflected the social and anthropological activities and cognition of feelings. The livelihood isn't only focusing shelters but also other social activities such as transportation, sex, and habitats. The community had been developed their transportation with boat riding that derived from long history. The Deveniyan Kumbura rock art may depicted king and queen travelled through water where standing queen behind the king when he riding the boat. The struggling of power is called a war where represented in Lihiniyagala expressed of strife and rage. The violent confrontations between groups or scenes of combat are used to illustrate this. Sometimes human beings are seen using weapons,

such as spears or bows, and in conflict or combative poses. *Budunge hela* denoted totally different phenomenon of agriculture and working on wealthness, economy and symbolized co-operation of the community.

The research sample of rock art clearly explore livelihood and cognition of the pre literate community as showing skills, animal domestication, love and affection, industrial capabilities and the civil power. And symbolized rend may influence transmit existing culture and the technology generation to generation are the research conclusions.

For example, Wettambugala rock art symbolized carrying flags while riding elephant in possession and the art form of the flag may light up the identity of itself. This cave art denotes that the advancement of the society and its performing art and culture. The skillful man symbolized confident and strong relationship with the elephant by climb up the legs and hands happily while riding elephant.

Reference

- Bandaranayake, S. (2002). *The Rock and Wall Painting in Sri Lanka*, Singapore, Stanford Lake (pvt)
- Clottes, J. (2016). *What Is Paleolithic Art? Cave Paintings and the Dawn of Human Creativity*. University of Chicago Press.
- Conkey, M. W., & Soffer, O. (1997). *Beyond Art: Pleistocene Image and Symbol*. University of California Press.
- Deraniyagala, S. U. (1992). *The Prehistory of Sri Lanka: An Ecological Perspective*. Colombo: Department of Archaeology, Sri Lanka.
- Eisenstadt, S. N. (1978). *Traditional Societies and Technological Change*. Halsted Press
- Geiger, W. (1912). *The Mahavamsa: The Great Chronicle of Ceylon*. London: Oxford University Press
- Gunawardana, R. A. L. H. (1979). *Robe and Plough: Monasticism and Economic Interest in Early Medieval Sri Lanka*. Tucson: University of Arizona Press.
- Guthrie, R. D. (2005). *The Nature of Paleolithic Art*. University of Chicago Press
- Illangasinghe, S. (2017). *Srilankeya Adi Wasinge Sell Chithra*, Stamperd Lake Publishers

- Lewis-Williams, D. (2002). *The Mind in the Cave: Consciousness and the Origins of Art*. Thames & Hudson
- Martel,R,A., (2020). *Semiotics and Meaning of Rock Art*, ResearchGate Publication, 337824606
- Nandadeva, B. D. (1992). *Rock art sites of Sri Lanka*, Indiragandi National Centre for the Arts
- Nicholas, C. W., & Paranavitana, S. (1961). *A Concise History of Ceylon*. Colombo: Ceylon University Press.
- Parker, H. (1909). *Ancient Ceylon: An Account of the Aborigines and of Part of the Early Civilization*. London: Luzac & Co.
- Ray, H. P. (2003). *The Archaeology of Seafaring in Ancient South Asia*. Cambridge: Cambridge University Press.
- Smith, B. D. (2001). *The Emergence of Agriculture*. New York, NY: Scientific American Library.
- Somadeva, S., (2012). *Rock painting and engraving sites in Sri Lanka*, PGIAR Publication.
- Somadeva,R., (2019). *A Review of Rock art studies in Sri Lanka*, PGIR,University of Kelaniya
- Trajtelova,J (2013). *Cognitive Antropology: Selected Issues*, Filozoficka fakulta Trnavsky University.
- Turner, C. (2007). *The Mongol Empire: The Rise and Fall of the Most Powerful Military Force in History*. World History Publishers.
- Whitley, D. S. (2009). *Cave Paintings and the Human Spirit: The Origin of Creativity and Belief*. Prometheus Books.

Digital Preservation of Veddah Cultural Heritage: Safeguarding Indigenous Knowledge in Sri Lanka

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Abstract

The *Veddah*, Sri Lanka's indigenous people, represent a unique cultural heritage that is rapidly disappearing due to resettlement, modernization, and assimilation into dominant cultures. Traditionally, they practiced a forest-based, hunter-gatherer lifestyle, in which a significant place was given to the religious belief system centered around *Na Yakku* (ancestral spirits) (Ananda & Nahallage, 2022). However, the Development Projects in the 1980s forced *Veddah* communities to relocate, leading to significant cultural erosion. Due to changes in their traditional habitat and other contributing factors, the *Veddah*'s cultural practices are on the edge of disappearing. The transmission of this knowledge, especially to the younger generation, has ended as they no longer accept these traditions (Ananda & Nahallage, 2022). This research focuses on safeguarding *Veddah* cultural heritage digitally by aligning with the five broad 'domains' proposed by UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage. These domains incorporate Oral traditions and expressions, including language; Performing arts; Social practices, rituals, and festive events; Knowledge and practices concerning nature and the universe; Traditional craftsmanship (UNESCO, 2003). An attempt will also be made to propose this digitalization approach through a 'Digital Cultural Heritage Preservation Model'. Further, this research seeks to address how digitalization can serve as a means of preserving *Veddah* cultural heritage and support efforts towards its revitalization.

Literature Review

The literature on the digital preservation of indigenous cultural heritage provides diverse methods used to safeguard endangered traditions, languages, and practices. These methods have been employed across various indigenous communities and are highly applicable to the preservation of *Veddah* cultural heritage in Sri Lanka. In their work Bell et al highlight the use of digital platforms to return cultural knowledge and artifacts to indigenous communities. This method allows communities to access separated heritage, often found in global museums or research archives, through digital repositories that they can control and curate. This strategy empowers indigenous people to reclaim and manage their heritage digitally (Bell, et al., 2013). Ngulube (2002) explores the role of information professionals in preserving indigenous knowledge by using digital tools to document oral traditions, rituals, and ecological knowledge. This method emphasizes the importance of creating accessible digital archives for communities and educational institutions to prevent the loss of indigenous knowledge systems (Ngulube, 2002). UNESCO Guidelines for the preservation of digital heritage describe managing and technical perspectives in detail (National Library of Australia, 2003). Previous research highlights the use of video and audio recording technologies that are used to capture oral histories, ceremonies, and linguistic heritage. These digital recordings were then stored in a digital archive that could be accessed by community members for cultural education and preservation efforts. Christen (2012) addresses the complexities of open access digital platforms, proposing a model where indigenous communities have control over what cultural information is shared publicly (Christen, 2012). Hinton (2011) emphasizes language documentation as a key digital preservation method. Through recording endangered languages and creating online language learning tools, communities can revitalize their linguistic heritage. This approach is highly relevant to the preservation of *Veddah* oral traditions and language, which are at risk of disappearing (Hinton, 2011).

Methods and Methodology

This study employs a mixed-method approach, combining qualitative research design and a literature review. Specifically, the research consists of two phases. In the first phase, researchers assess the current state of *Veddah* cultural heritage through fieldwork conducted in the indigenous communities of *Yakkure* situated in the Polonnaruwa District and *Henanigala* in the Ampara District. Traditional cultural heritage was collected through interviews that were conducted with 16 participants selected from both villages (8 from each). Twelve oral-histories, 5 from *Yakkure* and 7 from *Henanigala* were conducted specially with the key respondents representing the older generation of the two villages. Six focus group discussions, 3 in each village that included both younger and older participants, were conducted to gather their own insights on cultural preservation and impact of globalization, modernization on traditional cultural heritage. All these participants were selected through the purposive sampling technique ensuring their affinity with the *Veddah* community. Participants with considerable knowledge of their culture were selected for interviews and life-histories. All the data collected were analyzed using thematic analysis. Recorded cultural heritage in the form of audio, images, and video was categorized under the UNESCO cultural heritage domains. In the second phase these domains were considered for digital preservation using methods and guidelines from previous research, along with the researchers' perspectives. Ultimately, a Digital Cultural Heritage Preservation Model was developed.

Results and Discussion

The digitalization of *Veddah* cultural practices uncovered a wealth of endangered knowledge, including forgotten rituals, ceremonial dances, and traditional forest-based lifestyle. The model presented below will preserve these cultural elements and will also serve as an educational resource, promoting cultural revitalization and allowing younger generations to reconnect with their heritage.

A Model for Preserving *Veddah* Cultural Heritage through Digitalization: 'Digital Cultural Heritage Preservation Model'

To develop a comprehensive model for preserving *Veddah* culture through digitalization, we can draw on successful methods used in similar studies of indigenous cultural preservation. The model incorporates a multi-step approach to safeguard the *Veddah* people's oral traditions (*vadi* language), religious belief system (ceremonial dances, invocations, magic), indigenous knowledge, traditional customs associated with rites of passages, etc. The following model outlines the stages of documentation, preservation, management, and accessibility, while ensuring community involvement and protection of sensitive information.

1. *Documentation and Collection of Cultural Knowledge*: The first step in preserving *Veddah* culture involves gathering and documenting all aspects of their cultural heritage. Utilize audio and video recording technologies to capture interviews with *Veddah* elders, key informants, and leaders. Special attention should be given to their belief in *Na Yakku* (ancestral spirits) and other religious traditions. Participant observation can be used to identify and document cultural practices that are still performed and indigenous knowledge of medicinal plants, forest-based survival practices, and subsistence methods such as honey gathering and Chena cultivation.
 - 1.1. *Language Documentation (Hinton, 2011)*: Record and digitize *Veddah* language, including invocations, *vadi* songs etc., and everyday conversations. Develop/identify language learning tools to help younger generations and interested communities access and revive their linguistic heritage.
2. *Digital Archiving and Storage*: Once cultural knowledge has been collected, the next stage is creating a digital archive to store and manage the data securely (Bell, et al., 2013) under UNESCO five broad domains. This can be done through creating a community-centered

digital repository where the collected data can be stored. Support of the National Library/Archive or National Museum would be more effective. This archive should be curated and managed by the *Veddah* community, ensuring that they have control over what information is stored and who can access it. The archive can be stored in cloud-based servers to ensure data safety and accessibility.

3. *Access Control and Protection of Sensitive Knowledge (Christen, 2012)*: Use digital access management tools to regulate what content is publicly available and what is restricted to the community. Ensure that sacred practices or rituals, like those involving *Na Yakku*, are protected and shared only with community members who have the appropriate cultural rights. Integrate permissions-based access for researchers or external users, with approval from *Veddah* leaders.
4. *Educational Platforms and Cultural Revitalization*: The digitalized data should be actively used to educate both the *Veddah* community and the broader public. Digital education tools can provide platforms for cultural education and revitalization (Hinton, 2011).
 - 4.1. Develop multimedia educational resources (online tutorials, interactive videos, virtual reality experiences) that teach *Veddah* culture, language, and history. These tools can be integrated into local school curricula or offered as community workshops to engage younger generations.
 - 4.2. Collaborate with schools, community centers, and government agencies to ensure that *Veddah* cultural education is included in broader educational initiatives.
5. *Ceremonial Dances and other Rituals*: Use digital platforms like social media, video-sharing sites, or online festivals to revive and promote cultural practices. Traditional *Veddah* rituals like the *Kiri Koraha*, *Hathma*, *Yakkama* etc. can be showcased both within the community and to the wider public in appropriate ways. Organize virtual cultural festivals or online exhibitions making their culture accessible to

national and international audiences while maintaining respect for their traditions.

6. *Community Engagement and Empowerment*: Ensuring the success of digital preservation efforts requires active involvement from the *Veddah* community. They must be both the custodians and the beneficiaries of the digitalization project: Collaborative Workshops (Ngulube, 2002) - Hold community workshops with *Veddah* elders, youth, and leaders to identify key cultural elements for preservation. These workshops can also be used to train community members in the use of digital tools for recording and managing their cultural archives.
7. *Legal and Ethical Considerations*: A key aspect of this model is ensuring that the digitalization process is ethically sound and legally supported. Ensure that all digitalized cultural materials remain the intellectual property of the *Veddah* community. Establish legal frameworks that protect their rights to their cultural content, preventing any form of commercial exploitation or misuse of the data.
8. *Access and Public Awareness*: Finally, the digital preservation model should promote wider public awareness about the importance of *Veddah* culture while ensuring that access to sensitive materials is regulated: Create public-facing digital platforms, such as websites, mobile apps, or museum exhibitions, to raise awareness of *Veddah* culture. These platforms can feature general knowledge about *Veddah* history, ceremonial dances, and their ongoing efforts to revitalize their culture.

This is a brief outline of the comprehensive ‘Digital Cultural Heritage Preservation Model’, which should be discussed extensively in future works. The use of this model in cultural heritage preservation not only safeguards *Veddah* traditions but also empowers the community to control and curate their cultural narrative in the digital age.

Conclusions and Remarks

The preservation of *Veddah* cultural heritage through digitalization offers a practical solution to the challenges posed by cultural erosion. By documenting and archiving oral histories, rituals, and subsistence practices in digital formats, this research has created a lasting record of *Veddah* knowledge that can be used for educational and cultural restoration purposes. However, the success of digital preservation depends on ongoing community, and responsible governing sector engagement and support.

Keywords: *Cultural Heritage, Digitalization, Preservation, Veddah People, Sri Lanka*

References

- Ananda, T. & Nahallage, C., 2022. Present sociocultural status of the Sri Lankan indigenous people (theVeddahs) and future challenges. In: *Indigenous People And Nature Insights For Social, Ecological, And Technological Sustainability*: Elsevier, pp. 381-396.
- Bell, J. A., Christen, K. & Turin, M., 2013. After the Return: Digital Repatriation and the Circulation of Indigenous Knowledge. *Museum Worlds*, 1(1), pp. 195-203.
- Christen, K., 2012. Does Information Really Want to be Free? Indigenous Knowledge Systems and the Question of Openness. *International Journal of Communication*, Volume 6, p. 2870–2893.
- Hinton, L., 2011. Language revitalization and language pedagogy: New teaching and learning strategies. *Language and Education*, 25(5), pp. 307-318.
- National Library of Australia, 2003. *Guidelines for the preservation of digital heritage*, Australia: Information Society Division United Nations Educational, Scientific and Cultural Organization.
- Ngulube, P., 2002. Managing and Preserving Indigenous Knowledge in the Knowledge Management Era: challenges and opportunities for information professionals. *Information Development*, 18(2), pp. 95-101.
- UNESCO, 2003. *Intangible Cultural Heritage Domains*. [Online]
Available at: <https://ich.unesco.org/doc/src/01857-EN.pdf>

The Role of Hammurabi's Code in Mitigating Fear of Crime: Early Legal Structures and Societal Order

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Introduction

Over time, society's conduct and administration have been influenced by the enduring problem of fear of crime (Ranaweera, 2023). One of the earliest legal systems, the Code of Hammurabi, is a Babylonian law code that dates to 1792 BCE and has been employed in attempts to combat crime fear. This code integrated societal control measures for each offence level, and even governors' dictates were engraved in stone for easy reading (Code of Hammurabi: Laws & facts," 2009). The Babylonian system of government aimed to educate citizens about the law through punitive and non-punitive measures to reduce fear of crime and promote social order. The most memorable characteristic of Hammurabi's Code is the focus on punishment as captured in the *lex talionis* principle, which states an 'eye for an eye' (Driver & Miles, 1952). In this sense, retributive justice formulated legal realism whereby the redress of wrongs was also considered a deterrent to crime using harsh punishments.

Scholars have suggested that the code's predictable and public enforcement likely contributed to a reduced fear of crime within Babylonian society. Knowing how such early legal systems inform ordinary people's sense of security offers beneficial information about the evolution of law as an instigator of fear management, which also applies to the current ideas in criminology regarding the use of legal systems to prevent crimes today (Garland, 2001). Though there has been strict scholarship concerning Hammurabi's Code as a legal historical document, its aspect of controlling public fear of crime has not received much interest. The present

study aims to address this concern by focusing on the mechanism of operationalization of the Code of Hammurabi as a legal and psychological means of fear management within society. In addition, the attitude of the images and the virtual reconstruction of regions and archaeological artefacts as specific modern technologies should be more affecting the preservation and understanding of the ancient legal system and its societal role as contemporary knowledge (Alstola & Svärd, 2024)

The research question that guides this study is: How did Hammurabi's Code alleviate fears of crime and control society in ancient Babylon? In this respect, the study aims to explore the nature and content of Hammurabi's Code as well as the philosophy of retribution associated with it, specifically, the retributive legal practice known as the *lex talionis*, and to focus on the functions of Hammurabi's Code in alleviating the fear of crime with particular attention on how visibility of criminal laws and physical sanctions against deviance served as a mechanism of crime control.

Literature review

Legal Structure of Hammurabi's Code

The Code follows the ancient prophecies that will always be the law, and this is aimed at unifying the legal complexities of society, especially to incorporate all crimes, from crimes against property to crimes of violence (Van De Mieroop, 2005). The format of the code, which states the laws and the specific crimes that, in most instances, attract certain prescribed penalties, indicates that the view of justice and order was quite advanced. Finkelstein (1963) espoused that Hammurabi's Code was above mere codification of rules; it had the nature of a legal system meant to be recorded clearly and predictably. Thus, *lex talionis* has been regarded as a mode of retributive justice that does justice to the crime because it limits excesses or irrationality in certain punishment situations. This conception of social justice enhanced equilibrium in society by letting individuals know

the repercussions of every activity they were involved in, thus lowering disguise (Driver & Miles, 1952).

The legal system made the precise cut of social stratification by ensuring that the consequences would regard the offender's status or the offended, which means nobles killed would be met with severe penalties as opposed to slave crimes that got lesser punishments (Finkelstein, 1963). Although it faced many criticisms due to its barbaric nature and unfairness, this kind of justice system does not give reform; this is the social order of the Babylonian society and the rationale for why the strong within the society are insured against the ills. Still, since the people appreciated the sight of the written laws, they became more careful because whenever they were the victims of crime, they apprehended legal provisions, which diminished the fear of being a victim and raised the fear of committing crimes (Happer, 1928).

Fear of crime and deterrence

One of the prominent modes of Hammurabi's Code was the mitigation of criminality through the deterrent effect. Institutions were permanently inscribed with tasks and information mainly related to avowers on stone steles in glorious places that made people aware of the impact of committing crimes (Van De Mieroop, 2005). Records of Altaian laws in public areas for everybody to see have been used as a strategy for crime prevention. In ancient Babylon, the code of Hammurabi placed in full view must have also helped keep the people's fears in check (Garland, 2001). By fostering a society where the commission of crime was immediately avenged through brutal and open repercussions, the code helped establish a comfortable climate of order and safety, discouraging wrongdoers from offending.

Garland (2001) argues that deterrence is a central conceptual tool in alleviating the fear of crime within society. The reason for this sense of security is that the concept of punishment, as is most clearly indicated in the Code of Hammurabi, was understood by the people, and everybody

precisely knew the outcome of a criminal act. This type of fear management aligns with the contemporary sociological theories of crime, which underline the role of clear-cut rules in allaying fear of crime within society (Paternoster, 2010). On the other hand, the Code of Hammurabi, where the law discriminated against everyone and imposed corresponding penalties, is already an example of the practical implementation of this deterrence theory.

Societal Impact and order

The repercussions of Hammurabi's Code reached beyond regulating crime within Babylonian society. Some scholars studied how the code's division of acceptable and unacceptable behaviour defined social order and enhanced the state's power. Since it legalized an authority affirmed by the king, Hammurabi's Code was also a means of administration. It safeguarded that the state treated crime as the business of justice and vice versa. This sort of deterrence was perhaps better than earlier forms of punishment, which, as Van De Mieroop (2005) explains, were indiscriminate.

In addition, the code's effectiveness in fighting the fear of crime could be parallel to the evolution of legal systems in the past, such as the *Roman Twelve Tables of Mosaic law*. All these laws resort to written laws and public punishment for the enforcement of the law. Still, the code of Hammurabi goes beyond the others in that it is rich with legally binding descriptions of property and violent crimes, which is how Babylon sought to achieve civil and criminal justice parity (Driver & Miles, 1952). The encoded nature of the code, caught in inscriptions on stone and brought to the public's view, is one of those instances when legal codification was first evoked to enforce order and combat the fear of crime among the people.

Modern Interpretations and Technology's Role in Preservation

Technological advancements of late allow things previously unimaginable regarding keeping and reviewing ancient texts such as Hammurabi's Code. Scholars have utilized digital imaging, 3D modelling

and virtual reconstructions to shed light on the steles upon which Hammurabi's laws were inscribed (Warwick et al., 2012). These technological advances conserve material culture borrowing and provide the means to better understand the immaterial impacts, such as its contribution to decreasing fear of crime.

Older legal systems have been brought domestically to the modern public using digital technologies, including apps for virtual recreations of ancient courts and legal systems. The implications of this operate at a broader level about the effect of paint on an ancient society and afford new opportunities for building upon a phenomenological analysis of law and its role in mediation with fear, as historically feared literate evidence interrogated by the archaeology of technology (Warwick et al., 2012).

Methodology

This study applies a qualitative research method to explore how Hammurabi's Code suppresses fear of crime and controls social behavioural orders during ancient Babylon. The Methods section includes a historical-legal analysis and on-site observations at the Louvre Museum in Paris. The Louvre Museum curator gave an enlightening perspective on the code's historical value, conservation efforts, and cultural importance.

The field visits concerned the material aspects of the stele itself: its appearance, language, and physical layout. The public exposure of the code in Babylonian society was another trend emphasized by the curator, and it also formed a basis for legal transparency and state power. The size of the stele and the distinctness of its inscriptions were significant factors as these helped to minimize fear of crime by making citizens aware of what punishments awaited them for different offences.

The analysis was made on historical-legal corpus and related specific criminal offences, punishment, and social justice laws in Hammurabi's Code, which is its architectural building block. Common themes that appeared in the analysis of secondary sources, including scholarly articles and historical studies, were identified through a thematic

content analysis study where these methods of literature review related to social issues for both the deterrent effect and societal role of Hammurabi's Code constituted most frequently.

Findings

This rare opportunity for in-site observation of the artefact at the Louvre Museum underscores a crucial aspect of the experience: Hammurabi's Code is one among many ancient legal codes, but it also constitutes a vital mechanism by which the ancient Babylonian state sought to make law both visible and tangible. The fact that the stele was displayed face fronting outwards in public spaces and markets would have helped create an example of criminality, ensuring citizens understood the price to be paid for transgression. By being openly displayed, the code played an instrumental role in deterring crime since it linked a particular offence with its ultimate punishment, such as measures aimed at greater transparency in justice, setting a legal precedent found today prevalent in criminal proceedings.

The historical-legal study of Hammurabi's Code underscores retributive justice as a primary deterrent to crime. People did not know that these 282 laws were a complex constitutional system where justice was based on revenge or retribution, for the people feared it. This falls under modern deterrence theory, which states that people are less likely to commit crimes if they think they will be caught, tried, and punished.

Hammurabi's Code instilled fear effectively by raising the fear of committing crimes through reducing the fear of victimization with such brutal and direct punishments. The Code was effective since it operated on a principle just like Newton's third law of motion, where every action has an equal and opposite reaction. Any violation of another person's rights, theft, injury, and other crimes are punished proportionately- the punishment fitting the harm done, as Beccaria contended. Due to the publicity and unalterable nature of the Code, written on pillars for all to see, the certainty of punishment was ensured because the laws were clear and could not be

changed. Furthermore, the speed at which punishment occurs, also supported by Beccaria, was a vital aspect in terms of determining the effectiveness of deterrence in the law. Whereas Hammurabi's Code saw the punishment of a criminal as being both swift and certain and as brutal as it was swift and certain, the code simultaneously provided a level of deterrence against prospective criminals and confidence in victims that justice was indeed being served in a fair and not-at-all sluggish manner.

The study also shows the relatively strong link between the legal design of the Code and mood accountability and its emotional takeaway for the population. Hammurabi's Code achieved this by creating a predictable and stable environment for citizens, removing some of the fear of uncertainty. Public shaming of offenders may have also helped reassure communities that justice was being done, strengthening social bonds.

Conclusions

One part of the study explores how Hammurabi's Code determined repose and social order within ancient Babylon. A then claims that the Code was a double-edged sword- on the one hand, it specified what punishment criminals should be dealt with, where the limit for acceptable behaviour lay, and on the other, it hallucinated the public into believing there is a minor crime outside their imagination. The publicly displayed code on stone steles emphasized legal transparency and predictability, ensuring that the Babylonian people would realize that justice would be consistently enforced. Retributive justice prescribed in the code, especially *lex talionis*, was essential in preventing crimes by clarifying what would happen if you breached the law. Public knowledge of Hammurabi's Code served as a means of social control, as potential criminals learned the penalties for their crimes and weighed the punishments they would incur.

The research explains how ancient legal traditions create norms such as crime prevention and social order in today's legal system. Advanced technology has facilitated present-day researchers to comprehend a more

detailed analysis and public access to this legacy of Humbaba's code and its societal and juridical influence.

References

- Alstola, T., & Svård, S. (2024). Digital humanities meet ancient languages. *Changes in Sacred Texts and Traditions*, 193-234. <https://doi.org/10.2307/jj.18108256.9>
- Amen, S. (2014). The code of Hammurabi: Reducing risk. *Trading Thalesians*, 61-82. https://doi.org/10.1057/9781137399533_4
- Code of Hammurabi: Laws & facts*. (2009, November 9). HISTORY. <https://www.history.com/topics/ancient-middle-east/hammurabi>
- Driver, G. R., & Miles, J. C. (1952). *The Babylonian Laws*. Oxford University Press.
- Dunn, S., & Mahony, S. (2011). *Digital Humanities and the Study of Ancient Texts*. Oxford University Press.
- Finkelstein, J. J. (1963). The ox that gored. *Transactions of the American Philosophical Society*, 53(2), 1–91. <https://doi.org/10.2307/1005840>
- Garland, D. (2001). *The Culture of Control: Crime and Social Order in Contemporary Society*. University of Chicago Press.
- Paternoster, R. (2010). How much do we know about criminal deterrence? *The Journal of Criminal Law & Criminology*, 100(3), 765–824.
- Ranaweera, N. (2023). The geography of female fear of crime: A bibliometric mapping and an overview in an Asian context. *International Journal of Social Science, Technology and Economics*
- Thomas V. Happer, *Babylonian Procedure*, 3 Notre Dame L. Rev. 258 (1928). Available at: <http://scholarship.law.nd.edu/ndlr/vol3/iss5/5>
- Van De Mieroop, M. (2005). *King Hammurabi of Babylon: A Biography*. Wiley-Blackwell.
- Warwick, C., Terras, M., & Nyhan, J. (2012). *Digital Humanities in Practice*. Facet Publishing.