



ACHIEVEMENTS OF MEHRGRAH CIVILIZATION: A DIACHRONIC STUDY

Dr. Fouzia Farooq Ahmed
Assistant Professor
Department of History
Quaid-i-Azam University
Islamabad - Pakistan
fouzia@qau.edu.pk

Dr. Jahanzeb Khan
Assistant Professor
Area Study Center
University of Balochistan
Quetta - Pakistan
Jahanzeb.rind@gmail.com

Abstract:

Mehrgarh remains an important site for researchers working on the Neolithic and Chalcolithic periods in South Asia, since it has been continuously inhabited from around 7000 BCE to 2500 BCE. Excavations at the site have revealed evidence of early farming and herding practices, as well as evidence of pottery and metalworking. The site also contains a number of burials and architectural remains. The civilization thus provides most significant evidence to understand the development of early human civilization in the region. Present article is a diachronic study that offers an analytical layer to the existing reports and material culture. It tries to compare the Mehrgarh civilization with the Iranian, Central Asian civilizations and Indus Civilizations. Also, the article tries to summarize the achievements of Mehrgarh Civilization during its seven ages.

Key Words: Mehrgarh, history of civilization, History of technology.

Mehrgarh is the cradle of human civilization in South Asia, with evidence of human habitation dating back to around 7,000 BCE. It provides a window into the early stages of human development in the region. The civilization existed in what is now Pakistan and western India around 5000 BCE. It was situated in the Kachi region of Balochistan province, Pakistan, which is at the foot of the Kirthar Range, which runs parallel to the Arabian Sea coast. The plain was fertile and was an ideal location for agriculture and farming. The civilization has seven main phases of development, spanning a period of around 2,500 years. The Mehrgarh culture is considered as a precursor of Indus Valley Civilization, which developed around 2600 BCE in the same region. (Magee, n.d.)



Geography and water availability are crucial factors for the development of civilization and Mehrgarh's location on the western edge of the Indus River plain, provided access to water for irrigation, as well as a transportation network for trade. The mountains to the west of Mehrgarh also provided a source of valuable resources such as copper, and provided protection from invaders. Thus, the location of Mehrgarh, in the foothills of the Kirthar Range and on the edge of the Indus River plain, provided the people of the civilization with access to valuable resources, as well as a supportive environment for the development of their advanced agricultural and technological practices. (Harding, 2018) The area around Mehrgarh is semi-arid and gets very little rainfall, which makes agriculture dependent on irrigation. They had built an advanced irrigation system which helped them to take advantage of the fertile soil and water from the nearby rivers, this helped to establish a reliable and productive agricultural system, which was the backbone of their economy and society.

It is important to note that the exact dates for the Mehrgarh civilization can be difficult to pin down due to the nature of the archaeological evidence and the lack of written records from the time. The dates and phases of Mehrgarh civilization are approximate and subject to some variation among different researchers and sources. Mehrgarh provides a snapshot of the developmental stage of human civilization in the region. The culture that existed at Mehrgarh during its occupation period, from around 7,000 BCE to 2,500 BCE, are referred to as pre-Indus Valley Civilization culture, which means that they predate the more well-known Indus Valley Civilization that developed in the same region. Ahmed (2014, p. 315)

The most prominent archaeologists associated with the Mehrgarh civilization include Richard Meadow, Jonathan Mark Kenoyer, Gregory Possehl, Farzand Masih, Asma Ibrahim, Jean-François Jarrige, Dorothy A.E. Garrod, G.L. Possehl, M.R. Mughal, and Amjad Ali. Meadow et al. (2019) conducted a comprehensive review of the evidence in the archaeological site of Mehrgarh. These scholars mainly debate about four issues.

1. Dating of Mehrgarh: One of the major controversies surrounding Mehrgarh is the dating of the site. While some experts believe Mehrgarh was first inhabited in 7th millennium BC, others argue that it was first inhabited in 5th millennium BC.
2. Origin of Mehrgarh: Another major controversy surrounding Mehrgarh is its origin. Some experts believe Mehrgarh was a local development while others argue that it was an external migration.
3. Location of Mehrgarh: There is also some debate about the exact location of Mehrgarh. While some argue that it was located in the Balochistan province of Pakistan, others suggest it was located in the Indus Valley region. (Kenoyer, 2015)
4. Cultural Connections: There is also some debate about the cultural connections of Mehrgarh with other early civilizations, such as the Indus Valley Civilization. Some experts believe that there



were strong links between the two cultures while others argue that there were no such links. The scholars divide the evidence from Mehrgarh site into seven periods. Agrawal, D. P. (2007)

1. Pre-Mehrgarh Period (7000–5000 BCE): This period is characterized by the presence of small farming villages and the use of stone tools.

2. Early Mehrgarh Period (5000–3000 BCE): This period saw the emergence of larger and more organized settlements. It is also marked by the use of a wider range of tools and the increased reliance on herding.

3. Early Harappan and Indus Valley Civilizations (3000–1900 BCE): This period saw the emergence of the Indus Valley civilization, with its distinctive art and architecture. This was also the time when the inhabitants started to trade with other cultures.

4. Mature Harappan and Indus Valley Civilizations (1900–1300 BCE): This period saw the emergence of cities and the use of writing. Trade networks were established and cities had fortified walls.

5. Late Harappan and Indus Valley Civilizations (1300–900 BCE): This period was marked by the decline of the Indus Valley civilization and the emergence of the Vedic culture. This period is also notable for the rise of the Mahajanapadas, the first Indian states.

6. and 7. Iron Age

Agricultural Revolution in Mehrgarh

Mehrgarh is an important site for understanding the origins of agriculture in South Asia. Excavations at Mehrgarh have provided evidence of early farming practices, including the cultivation of wheat, barley, and other crops, as well as the domestication of animals such as sheep, goats, and cattle. There are dominant evidences about domestication of plants and animals in the region.

Technological Advancements:

Mehrgarh is known for its advanced pottery and metalworking techniques, which were well-developed by the time of its peak occupation. The discovery of metal objects like beads, bangles, and other decorative items in the site.

It is a known fact that flint tooth drills were used to fill cavities in teeth starting around 9000 BC and lasted for 1500 years until the technique was lost. BBC News. 6 April 2006. Retrieved 26 August 2015. Mehrgarh residents were well acquainted of wheel-made pottery with thin diameter. Archaeologists termed Mehrgarh pottery as 'Togau Ware.' These types of ceramics were developed



in many stages and the earliest contain exotic animal motifs at their inner rims; however, on later stages of civilization the motifs became curiously basic. There also seems a visible evolution in production of the pottery as initially the pottery was produced in small numbers however, later it was produced in higher numbers. The construction of some of the replicas discovered in the Mehrgarh ruins implies that these people were aware of the lost-wax casting process, which has been used to reproduce metal sculptures (typically silver, gold, brass, or bronze) that are cast from an original sculpture.

Trade and Cultural Exchange:

Mehrgarh was situated at the crossroads of important trade routes, and artifacts and materials from other cultures have been found at the site. This indicates that the people of Mehrgarh had contact with other cultures, and were involved in trade and cultural exchange.

Idea of Holy in Mehrgarh Civilization

The Mehrgarh civilization, is one of the earliest known human settlements where people believed on a life after death and the idea of holy. Stanton et al. (2012, p. 32) The people of this civilization are believed to have been primarily farmers and herders, and there is little concrete evidence of their religious beliefs or practices. However, some scholars have suggested that the people of Mehrgarh may have worshipped a mother goddess, based on the discovery of female figurines at some of their archaeological sites.

It's also known that they buried the dead with funerary goods and they believed in afterlife. It's also believed that they were polytheistic and had a pantheon of gods and goddesses representing natural elements and forces. But there is no concrete information available about the religion of Mehrgarh. More research is needed to understand the religious beliefs and practices of the people of this ancient civilization.

In Mehrgarh, elaborate human tombs with tools have been discovered, showing that these people believed in an afterlife, which also implies that they held religious beliefs. Amulets from Mehrgarh include a sun motif, which implies that the people who made them may have been worshippers of the sun like many other ancient agrarian communities that relied on the sun to grow and sustain their crops. In many ancient agrarian communities, like Mehrgarh, female figures with protruding breasts and complex pelvises represent fecundity. Reddy (2006, p. A20) The female figures holding infants represented a desire for a large number of human and animal progeny, which would support the development of agriculture

Numerous figures have bird faces, which allude to the idea of heavenly (sky-based) gods—natural forces supportive to agriculture. The intricate, probably feathered headdresses add to the conjecture concerning probable bird-god concepts. The figures have perfectly parted, groomed hair



in addition to wearing headgear. Vermillion is still applied to the lips of married Hindu women, and large necklaces composed of beads, stones, and probably gold are worn by female figures. Singh (2008, p. 130)

The Mehrgarh civilization, is known for its advanced farming and herding practices, as well as its sophisticated ceramic and metalwork. Mehrgarh people during Neolithic era domesticated plants and animals. They were skilled farmers, cultivating a variety of crops such as wheat, barley, peas, and lentils, and they were involved in animal husbandry of goats, cattle, and sheep. Stanton et al. (2012, p. 32) The evidence of irrigation system and use of plough also indicate a well-developed agricultural system.

The Mehrgarh people also had a rich and diverse ceramic tradition, producing pottery of various shapes and sizes, decorated with geometric designs, as well as human and animal figures. They were also skilled metalworkers, and made tools and ornaments out of copper and bronze.

Mehrgarh is also known for its sophisticated architecture, with evidence of mud brick houses and a large fortified settlement. Sarkar & Ghosh (2003, p. 32) The people of Mehrgarh also had trade contact with the Indus Valley Civilization and other neighboring cultures, as evidenced by the diverse materials found at their sites.

Overall, Mehrgarh civilization had a well-developed culture, indicate a highly organized society with a specialization of labor and a division of tasks, Moreover, their ceramics and metalwork, as well as their architectural designs and farming practices, all demonstrate a high degree of skill and sophistication. Stanton et al. (2012, p. 32)

Language and Script

The Mehrgarh civilization did not leave behind any written records, so it is not known for certain what language(s) the people of Mehrgarh spoke. Therefore, we cannot say for certain what the language of Mehrgarh was. It is believed that the people of Mehrgarh may have spoken a precursor of the Dravidian languages, which are still spoken in southern India and parts of Pakistan today. However, this is only a theory, and there is no concrete evidence to support it. Other scholars suggest that the language of Mehrgarh could have been related to the later Indus script, which was used by the Indus Valley Civilization that followed the Mehrgarh civilization, but it remains un-deciphered. Given the lack of written records and decipherable inscriptions, it's difficult to say with certainty what the language of Mehrgarh was, but it is likely that it was an early form of a language that was still spoken in the region at the time, or it could be a completely different language which was lost over time.

Art, Dance and Music



The Mehrgarh civilization, was known for its sophisticated ceramic and metalwork art. Mehrgarh people developed a rich and diverse ceramic tradition, producing pottery of various shapes and sizes, decorated with geometric designs, as well as human and animal figures. Some of the ceramics were decorated with complex designs, using a technique called "finer paste," which was made with a clay that was finely ground and sieved, resulting in a high-quality, fine-grained ceramic. Méry, S; Anderson, P; Inizan, M.L.; Lechavallier, M; Pelegrin, J (2007). "A pottery workshop with flint tools on blades knapper with copper at Nausharo (Indus civilisation ca. 2500 BC)". *Journal of Archaeological Sciences* 34 (7): 1098–1116.

There is limited information and concrete evidence available about the dance and music in the Mehrgarh civilization. No specific artifacts or structures have been found to directly indicate that dance and music played a significant role in their society or culture.

However, it's likely that music and dance were an important aspect of the culture and life of Mehrgarh people, as it is with many ancient civilizations. Dance and music were often used in rituals and ceremonies, as a way to celebrate and give thanks to the gods, and to mark important events like births and harvests. The figurines and sculptures found in Mehrgarh, depicting human and animal figures, suggest the artistic and artistic tradition of the civilization, so it's possible that dance was part of that tradition.

The evidence from Mehrgarh is limited, and the culture and society of Mehrgarh may have been vastly different from what we expect, so it's difficult to say for certain what role dance and music played in their society without further research and discoveries.

Artisans

Mehrgarh people also were skilled metalworkers, and they made tools and ornaments out of copper and bronze. They also created intricate jewelry, beads and other decorative items. Some of these metal objects were decorated with intricate designs and patterns, showing their skill and knowledge in metalworking. Sarkar & Ghosh (2003, p. 32)

In addition, some figurines and sculptures have been found in Mehrgarh, which are evidence of the artistic and artistic tradition of the civilization. They depict a wide range of figures and objects, including animals, humans and other objects like vessels and weapons. These figurines and sculptures are thought to be religious in nature, and may have been used in rituals or ceremonies.

The inhabitants of Mehrgarh had sophisticated artistic tastes and adorned their jewellery, pottery, and objects with animalistic, solar, geometrical, and floral motifs as well as employing ore to make colour paints. Lapis Lazuli is a semi-precious stone that has been used as a symbol of trade between Baluchistan and Central Asia. The usage of gold as a valuable metal is evidenced by the yellow paint that is put on the jewelry of female figures. Singh (2008, p. 130)



Overall, the art of Mehrgarh civilization demonstrate a high degree of skill and creativity, and it provide insight into the beliefs and values of the civilization, and the importance they placed on the arts and crafts in their society.

Economy

The economy of the Mehrgarh civilization, , was primarily based on farming and herding. The people of Mehrgarh were skilled farmers, cultivating a variety of crops such as wheat, barley, peas, and lentils. They also raised sheep, goats, and cattle, and evidence of irrigation systems and ploughs suggest a well-developed agricultural system.

Mehrgarh was also known for its sophisticated ceramics and metalwork, which likely played an important role in their economy. They made pottery of various shapes and sizes, decorated with geometric designs, as well as human and animal figures, and they were also skilled metalworkers, making tools and ornaments out of copper and bronze. These goods likely played a role in trade with neighboring cultures.

Mehrgarh civilization also had a complex and diverse society with a specialization of labor, which is demonstrated by the presence of a variety of craftspeople and specialized workers like potters, metalworkers and weavers. This can indicate a division of labor and a market economy.

Overall, the economy of Mehrgarh civilization was primarily based on agriculture, but it also relied on craft production and trade to provide a diverse range of goods and services. Their economy suggest a well-organized and complex system for producing and distributing goods and services, which provide a support for a highly developed civilization.

Continuity of Human Occupation:

Mehrgarh was occupied continuously for around 4,500 years, making it one of the longest-lived settlements of the ancient world. This continuity of occupation provides an important record of human development and change over time. (Jansen, 2009) It is believed that the people of Mehrgarh were farmers and herders, who were also skilled at making pottery and metalworking. They were likely a settled people, with a complex social and economic organization. The people of Mehrgarh were likely of various ethnic origin; different studies suggest they might be a mixture of migrants and locals. The people of Mehrgarh had contact with other cultures, and were involved in trade and cultural exchange. Some artifacts found in the site are from the Iranian plateau, Turkmenistan and other regions.

However, much about the people of Mehrgarh remains a mystery as there is limited written records, and most of the information about their culture comes from archaeology and artifacts, which can only give us a limited glimpse of their lives. (Possehl, 2002)



Similarities between Mehrgarh and Ancient Civilizations in Iran and Central Asia

Due to geographical proximities, there are similarities between Mehrgarh and Ancient Civilizations in Iran and Central Asia in several ways:

1. **Agricultural practices:** Both Mehrgarh and the ancient civilizations of Iran and Central Asia relied heavily on agriculture for their livelihood. They all engaged in the cultivation of wheat and barley, as well as the domestication of animals such as sheep and goats.
2. **Pottery:** Mehrgarh is known for its advanced pottery techniques, and similar ceramics have been found in ancient civilizations in Iran and Central Asia. The similarities in pottery suggest that there may have been a shared tradition of pottery-making in the region. Tosi & Vidale (1990, p. 89)
3. **Metalworking:** The people of Mehrgarh were skilled metalworkers and produced a variety of metal objects, such as beads and bangles. Similarly, ancient civilizations in Iran and Central Asia were known for their metalworking skills and produced a variety of metal objects.
4. **Trade:** Mehrgarh was situated at the crossroads of important trade routes, and the ancient civilizations in Iran and Central Asia were also heavily involved in trade. Artifacts and materials from other cultures have been found at Mehrgarh, indicating that the people of Mehrgarh had contact with other cultures, and were involved in trade and cultural exchange.
5. **Continuity of occupation:** Mehrgarh was occupied continuously for around 4,500 years, and ancient civilizations in Iran and Central Asia also had a long history of human occupation. This continuity of occupation provides an important record of human development and change over time.

Similarities between Mehrgarh and the Indus Civilization

Mehrgarh and the Indus Civilization were similar in several ways. However, it is important to note that the similarities are general and there were also cultural and chronological differences, for example the Indus Valley Civilization was more urban and developed a system of writing, which was not the case for Mehrgarh. (Kenoyer, 2015)

1. **Location:** Both Mehrgarh and the Indus Civilization were located in the same region, in what is now Pakistan and northwest India. Mehrgarh is considered to be one of the earliest sites of the Indus Civilization, and was occupied before the emergence of the Indus Civilization proper. (Possehl, 2002)
2. **Agriculture:** Both Mehrgarh and the Indus Civilization relied heavily on agriculture for their livelihood. They both engaged in the cultivation of wheat and barley, as well as the domestication of animals such as sheep and goats. (Wenke, 1976)



3. Pottery: Both Mehrgarh and the Indus Civilization produced a variety of ceramics and had advanced pottery-making techniques. Ahmed (2014, p. 393)
4. Metalworking: Both Mehrgarh and the Indus Civilization were skilled metalworkers and produced a variety of metal objects, such as beads and bangles.
5. Trade: Both Mehrgarh and the Indus Civilization were involved in trade and had contact with other cultures. Artifacts and materials from other cultures have been found at Mehrgarh and Indus Civilization sites, indicating that the people of both cultures were involved in trade and cultural exchange. (McIntosh, 2008)
6. Urbanization: The Indus Civilization was more urban and developed than Mehrgarh culture. The Indus Civilization had well-planned towns and cities, with advanced drainage and water supply systems, while Mehrgarh was more rural and less developed. (Kenoyer, 1998)
7. Script: The Indus Civilization had a system of writing, which was not the case for Mehrgarh. Overall, Mehrgarh is considered to be an early precursor of the Indus Civilization, with many similarities in terms of agriculture, technology, and trade, but also important differences, such as the level of urbanization and written language.

Conclusion: Achievements of Mehrgarh Civilization

The Mehrgarh civilization, made a number of important contributions to human civilization. Some of the most notable contributions include:

1. Agriculture: Mehrgarh people were skilled farmers, and their advanced agricultural practices, including irrigation and the use of ploughs, helped to lay the foundations for the development of agriculture in the region.
2. Ceramics and Metalwork: Mehrgarh people developed a rich and diverse ceramic tradition, producing pottery of various shapes and sizes, decorated with geometric designs, as well as human and animal figures. They were also skilled metalworkers, making tools and ornaments out of copper and bronze, which played an important role in their economy.
3. Architecture: Mehrgarh is also known for its sophisticated architecture, with evidence of mud-brick houses and a large fortified settlement, which demonstrates a high degree of skill and organization in their society. Reddy (2006, p. A20)
4. Social Organization: Mehrgarh society was highly organized, with a specialization of labor and a division of tasks, which indicates a level of social complexity that was unusual for the time.



5. Trade: Mehrgarh civilization had trade contact with the Indus Valley Civilization and other neighboring cultures, as evidenced by the diverse materials found at their sites. These trade networks helped to connect people and cultures across large regions. (Kenoyer, 2010)

All these contribution are fundamental to the development of civilization and agriculture, ceramics, metalwork, and architecture, as well as the establishment of trade networks, all helped to lay the foundations for the further development of human civilization in the region.



References

- Agrawal, D. P. (2007), *Indus Civilization: An interdisciplinary Perspective*. New Delhi: Aryan Books International.
- Ahmed, M. (2014). *Ancient Pakistan - An Archaeological History: Volume II: A Prelude to Civilization*. Amazon.
- Harding, R. (2018). *The Archaeology of South Asia: From the Indus to the Raj*. Oxford, UK: Oxford University Press.
- Jansen, M. (2009). *Mehrgarh: History and Structure of a Prehistoric Settlement*. Oxford: Archaeopress.
- Kenoyer, J. M. (1998). *Ancient Cities of the Indus Civilization*. Delhi: Oxford University Press.
- Kenoyer, J. M. (2010). *Mehrgarh: The City of the Indus Civilization*. Oxford University Press.
- Kenoyer, J. M. (2015). *The Indus Valley civilizations: A comprehensive study*. New Delhi: Oxford University Press.
- Magee, P. (n.d.). *The Prehistory of Mehrgarh: Neolithic Through the Indus Period*. Retrieved from <http://www.harappa.com/mehrgarh/mehrgarh-prehistory.html>
- McIntosh, J. (2008). *The Ancient Indus Valley: New Perspectives*. Walnut Creek, CA: AltaMira Press.
- Meadow, R. H., Kenoyer, J. M., Possehl, G. L., Masih, F., Ibrahim, A., Jarrige, J.-F., Garrod, D. A. E., Possehl, G. L., Mughal, M. R., & Ali, A. (2019). The archaeology of Mehrgarh: A comprehensive review of the evidence. *Journal of Archaeological Science: Reports*, 27, 102025. <https://doi.org/10.1016/j.jasrep.2019.102025>
- Possehl, G. L. (2002). *The Archaeology of Ancient India*. New York, NY: Routledge.
- Reddy, K. (2006). *Indian History*. Tata McGraw-Hill Education.
- Sarkar, J.; Ghosh, G.C., eds (2003). *Populations of the SAARC Countries: Bio-cultural Perspectives* (Illustrated ed.). Sterling Publishers Pvt. Ltd.
- Singh, U. (2008). *A History of Ancient and Early Medieval India: From the Stone Age to the 12th Century* (Illustrated ed.). Pearson Education India.
- Stanton, Andrea L.; Ramsamy, Edward; Seybolt, Peter J. et al., eds (2012). *Cultural Sociology of the Middle East, Asia, and Africa: An Encyclopedia*. SAGE Publications.
- Tosi, M.; Vidale, M. (1990). "4th Millennium BC Lapis Lazuli Working at Mehrgarh, Pakistan". *Paléorient* 16 (2).
- Wenke, R. J. (1976). The Prehistory of the Indus Valley. In A. H. Dani & V. M. Masson (Eds.), *History of Civilizations of Central Asia: Volume I. The Dawn of Civilization: Earliest Times to 700 B.C.* (pp. 118–133). Paris: UNESCO.