PalArch's Journal of Archaeology of Egypt / Egyptology

THE SIGNIFICANCE OF THE UNIQUE STONE TOILET TRAYS: INDO-SCYTHIAN PERIOD SIRKAP, TAXILA

Jan Muhammad¹, Dr. Nidaullah Sehrai², Muhammad Munsif³

¹PhD, Scholar, Department of Archaeology, University of Peshawar, Pakistan

²Lecturer-cum- Assistant Curator, Sir Sahibzada Abdul Qayyum Museum,

University of Peshawar, Pakistan

³Faculty of Art & Humanities, Coventry University, Priory St, Coventry CV1 5FB, United Kingdom

Email: ¹janhistorian2010@gmail.com, ²nidasehrai@yahoo.com, ³munsifm2@coventry.ac.uk

Jan Muhammad, Dr. Nidaullah Sehrai, Muhammad Munsif. The Significance of The Unique Stone Toilet Trays: Indo-Scythian Period Sirkap, Taxila-- Palarch's Journal of Archaeology of Egypt/Egyptology 20 (2), 2163-2178. ISSN 1567-214x

Keywords: Stone Toilet Trays, Gandhara, Indo-Scythian, Sirkap, Taxila, Animals symbolism

ABSTRACT:

This research paper examines the significance of the Indo-Scythian period toilet trays from Sirkap, Taxila, and sheds light on their cultural, religious, social, and technological implications in Gandhara. The study explores the historical context and the archaeological evidence surrounding these artifacts, providing a comprehensive analysis of their shapes, design, materials, and purpose. Additionally, it seeks to understand the intercultural exchange and influences that shaped the development of these artifacts. The Indo-Scythian period, marked by cultural and artistic integration, holds significant historical importance in Gandhara and the Indian subcontinent. Among the archaeological finds from this era, the discovery of toilet trays in the ancient city of Sirkap, Taxila, stands out as a unique and fascinating aspect of routine life during that time. The research draws on the combination of archaeological data, scholarly sources, and comparative studies to present a complete picture of the significance of the Indo-Scythian toilet trays. The findings of this study contribute to our understanding of daily life, technical achievements, and cultural interactions during this historically rich period in the region.

INTRODUCTION

Among the archaeological finds from this era, the discovery of toilet trays in the ancient city of Sirkap, Taxila, stands out as a unique and intriguing aspect of daily life during that time. The Indo-Scythian period, marked by the artistic combination of the Indo-Greek and Scythians cultures, holds significant historical importance in the regions of Gandhara and the Indian subcontinent. This research paper explores the significance of the Indo-Scythian period toilet trays from Sirkap, and Taxila, and sheds tremendous light on their cultural, social, religious, and technological associations. The study discovers the historical context and the archaeological evidence surrounding these artifacts, providing a comprehensive analysis of their design, materials, and usage. Through meticulously analyzing the characteristics and contexts of toilet trays, and the way of life of the residents of Sirkap during the Indo-Scythian era. Moreover, the cross-cultural exchanges and influences played a pivotal role in shaping the evolution of these artifacts and the significance attributed to toilet trays from the Indo-Scythian period. The Indo-Scythian period toilet trays from Sirkap, serve as essential windows into the past, providing us withvaluable practices and customs of a previous era. The historical significance of the Indo-Scythian period Toilet Trays was characterized by a unique intermingling of Indo-Greek and Scythian influences, and the archaeological findings, such as the toilet trays, provide treasured cultural practices and daily life of the inhabitants during that time (Siudmak, 2013).

The significance of the Indo-Scythian period highlights how the toilet trays exemplify technological achievements and cultural interactions of the time (Allchin, 1993). The Indo-Scythian period, a fascinating era of culturaland historical synthesis in Gandhara, witnessed the coexistence and exchange between the Indo-Greek and Scythians cultures. The Sirkap City well-preserved remains have been a treasure and unique antiquities for archaeologists, revealing that toilet trays, also known as toilet dishes are among the various archaeological finds from Sirkap and the stone toilet trays are the unique objects of the Indo-Scythian period (Marshall, 1962).

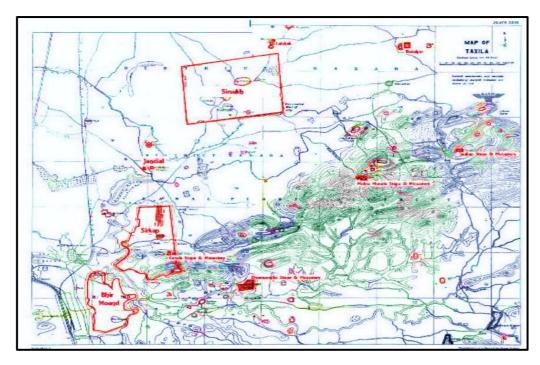


Figure: 1 Map showing the excavation area of Sirkap, Taxila (Marshall, 1912)

Historical Perspective of the Indo-Scythian in Gandhara

The Indo-Scythian, also known as the Sakas, were a group of nomadic Central Asian tribes who migrated to the northwestern regions in Gandhara and the Indian subcontinent in the (1st century BCE), (Bernard, 1994: 99-129) which comprises present-day northern Pakistan and eastern Afghanistan, left a lasting impact on its culture, art, architecture, political and cultural history (Lohuizen, 1949). The Indo-Scythian arrival in Gandhara is generally believed to have occurred at the beginning (1st century BCE) and they established several principalities and kingdoms, with their power centers located in cities like Taxila, Pushkalavati (modern-day Charsadda), and Kapisa (Bagram in Afghanistan) (Dani, 2012, Dar, 2006).The Indo-Scythian rule in Gandhara gradually declined during the (1st century CE) due to internal conflicts and pressure from other regional powers. They were eventually succeeded by the Indo-Parthians and later the Kushans, who continued to build upon the cultural legacy left by the Indo-Scythian (Taddei, 1987, 349-362).

The excavation of ancient sites in Gandhara, such as Taxila, (Marshall, 1960, Dar, 1986), Shaikhan Dheri (Dani, 1965), Aziz Dheri (Shah Nazar, 1993, Nasim Khan, 2010), Gor Khuttree, (Durrani, 1993, 1996, Ali, 2006-07) Hayatabad (Khan, 2017- 2022) and Pushkalavati, (Wheeler, 1958, 1962), Chatpat and Andan Dheri (Dani, 1967), Butkara- I (Faccenna, 1956-58) and Barikot (Olivieri, 2014: 141) has provided significant archaeological evidence of the Indo-Scythian presence. Artifacts like coins, sculptures, inscriptions, figurines, ceramics, architecture, beads, stone objects, and Jewellery have offered their history and contributions to the region. The Indo-Scythian period in Gandhara was a dynamic and transformative era, where various cultural elements converged to create a unique and vibrant evolution (Mukherjee, and Dasgupta, 2023, Samad, 2011). Their legacy is evident not only in the art and architecture of the region but also in the cultural interactions that laid the foundation for the subsequent empires that thrived in this historically rich area (Muhammad and Jan, 2023: 212-223).

Discovery of Toilet Trays from Gandhara

Interestingly, Taxila city sites have yielded a total of 82 toilet trays, with only three trays recovered from religious sites. Among all the locations where these trays have been found, Taxila is the only site that has been subjected to proper excavation (Carter, 1968: 121-146). According to John Marshall, a renowned archaeologist, only six trays are known to originate from Taxila properly excavated sites, which include three from Udigram Swat, one from Butkara-I, one from Bala Hisar Charsadda, and one from Hatra Iraq (Marshall, 1950: 492). Subsequently, Dr. Dar discussed 40 toilet trays which have been excavated from various sites, while 34 originating from the site of Taxila alone (Dar, 1979: 143). Marshall also noted the discovery of eight Indo-Scythian toilet trays in total (Marshall, 1950: 493-497).

Origin and Influence

It is evident that these trays first appeared and were crafted during the 2nd century BCE, continuing to be produced uninterruptedly until the 1st century CE. The majority of these trays have been found in Sirkap, the second city of Taxila, indicating a shift in cultural patterns from the Greek to the Kushan periods (Dar, 2010: 128). While the Greek period showcased Hellenistic themes and influences, the Indo-Scythian period introduced a collection of scenes exclusively depicting the famous animal style characteristic of Indo-Scythian art. Among the Scythian period trays, three display animals and riders, while seven are in the pure animal style (Marshall, 1950: 493-497). Scholars find these objects interesting due to their evident influences from diverse civilizations that succeeded one another in the region, including the Greeks, Scythians, Parthians, and elements from the Indian background, as well as remote Roman influences. However, owing to their rarity, establishing a reliable typology for these objects poses challenges and with only around 150 known pieces and their production spanning over two centuries, different scholars offer various typological interpretations (Dar, 1979, 141-184).

Numerous toilet trays have been unearthed during excavations in the second city of Sirkap, offering a significant glimpse into the past through their careful recovery from authentic archaeological layers. According to the research of Dr. Dar, the genesis of these artifacts traces back to the 2ndcentury BCE within the Greek strata of Sirkap, Taxila. It is noteworthy that while historical accounts initially mentioned only two specimens, a comprehensive collection of eight toilet trays emerged from the Indo-Scythian period. This trend continued to flourish during the Parthian era. Astonishingly, this practicegradually faded into insignificance after the 1st century CE. Dr. Dar meticulously studied and documented 115 pieces, delving into their intricacies (Dar, 1979: 141-184). In a parallel effort, a second study led by H.P. Francfort contributed detailed accounts and analyses of 97 pieces (Francfort, 1979, 93-95). The primary catalog classified these trays based on their geographical origin/roots, whereas the secondary catalogue adopted a thematic approach, dividing them into three distinct cultural categories: Hellenistic, Indo-Scythian, and Parthian, regardless of their spatial distribution.

The Craftsmanship of Toilet Trays of the Indo-Scythian Period

During the Indo-Scythian period in the Gandhara region, a fascinating array of unique art pieces emerged from various sites (Banerjee, 1920). Initially, the art style bore a striking resemblance to Indo-Greek traditions, but over time, it evolved and developed its distinct characteristics. Among the numerous antiquities unearthed in the second city of Sirkap at Taxila, an exceptional specimen stands out known as the "toilet trays" of the Indo-Scythian period. The toilet trays are remarkable pieces of art that have been discovered in the occupational layers of Indo-Scythian sites (Marshall, 1960: 177). These trays typically range in size from 9 to 17.5 centimeters in diameter and are crafted from various materials, including stones like steatite, phyllite, and schist. The trays' design typically features a concave surface with a raised border, while the bottom side is often convex.

In some instances, the back of the trays is flat, while the concave surface is adorned with intricate relief motifs, which are occasionally divided into two, three, or more sections (Dar, 1979, 141).

The unique nature of these toilet trays lies in their artistic craftsmanship and their functional significance in daily life during the Indo-Scythian era. Their design and materials provide the cultural connections and technological prowess of the time, making them valuable archaeological artifacts for understanding the material culture of the Indo-Scythian development in the Gandhara region. It is exciting to note that the toilet trays from the Indo-Scythian period exhibit diverse designs, often featuring main motifs sculpted in high relief, occupying the entire circular concave surface in most cases. However, in some instances, the main motif is restricted to the upper part of the tray. Additionally, certain trays have either plain backgrounds or are adorned with incised patterns of geometric, floral, and figural designs. The background of these trays is typically embellished with lotus petals, while the motifs on the front side often include representations of sun rays. Among the main motifs found on these trays, thematic arrangements of two, three, or more human figures are common, along with depictions of human and animal, or animal and composite figures (Dar, 1979, 142).

It is essential to recognize that these catalogues are not exhaustive, as not all pieces are included in both studies, and since their initial publication, over fifty new pieces, have likely emerged. These recent additions mostly originate from the antique market (Dar, 1979: 141-184, Francfort, 1979, 93-95, Taddei, 1987, 349-362). The examination of Gandharan trays often revolves around identifying the cultural influences involved in their production, particularly the Scythian influence. In Francfort's catalogue, a particularly interesting classification condition, especially for the post-Hellenistic period, is the distinction between the "palmetto-group" and the "lotus-group," representing two distinct and independent Indo-Scythian productions. Dar attributes most of the animal figures to the Scythian tradition and the drinking couples to the Parthian tradition, while the Indian significance associated with the lotus motif remains prominent. However, such analyses can be subjective, as stylization or schematization does not necessarily indicate a deviation from aesthetic values, and a linear progression cannot be easily traced (Stavisky, 1997, 29-53). Consequently, establishing a completely convincing chronological perspective for this collection of objects proves challenging. The production oftoilet trays originated in the Hellenistic period and continued for over a century under the rule of Greek successors, incorporating new Oriental elements influenced by Indo-Scythian art until the emergence of the Gandharan School around the reign of Kanishka. For instance, one can compare observations made regarding the depictions of couples or banquets, the makara, and the frontal view of the Sun chariot in Francfort's work with the relatively more "naturalistic" depictions by Tanabe. Additionally, most of the Indian religious scenes appear to be isolated and insufficient in number to be categorized (Francfort, 1979, 93-95). The primary conjectures center on Central Asia's crucial role as a major trade route, facilitating a flow of diverse influences between the West and Gandhara during the Hellenistic to the Kushan periods (Muzio, 1999, 41-71).

Consequently, when examining the foreign elements present in the Gandharan toilet trays, it is essential to consider the context of the northern trade route, characterized by the artistic influences of Scythian culture, rather than a southern route connected to Alexandrian art (Dar, 1979, 141-184).

Material

The chief and various materials of the Indo-Scythian period toilet trays were stones like steatite, phyllite, and schist (Ahmed, 1958, Marshall, 1947: 3-32). Moreover, the stone artifacts from the Indo-Scythian phase at Taxila include two notable kinds: toilet trays and female statuettes in the round, both made from chloritized micaceous schist (Marshall, 1918:692-693, Dobbins, 1973: 279-294).

Technique

Stone toilet trays from the Indo-Scythian period were likely created using techniques such as carving, engraving, and polishing. The choice of stone played a crucial role in the creation of stone toilet trays. The basic shape of the tray would be roughly carved out of the selected stone using tools like chisels and hammers which would have required a significant amount of skill and effort. Once the rough shape was achieved, artisans would proceed to carve intricate details and designs onto the surface of the tray. This could include decorative motifs, patterns, or even scenes from daily life, mythology, or religious themes. After the carving was completed, the surface of the stone would be polished and smoothed using abrasives. This would give the artifact a finer texture and enhance the visibility of the carved details. Artisans might have applied various finishing touches, such as adding pigments or dyes to enhance the appearance of the engraved designs. Depending on the artistic style of the time, the stone tray might have been further adorned with additional materials and it is important to note that the specific techniques and preparation would vary based on the type of stone, the purpose of the stone toilet trays, the available tools, and the artistic preferences of the time (Tiwary, and Saurabh, 2018: 764-781). Stone toilet trays were typically carved from various types of stone, such as limestone or sandstone, which were abundantin the Taxila region. Skilled artisans would have used chisels, hammers, and other carving tools to shape the stone into the desired form (Marshall, 2013). The trays might have been designed to fit within the architectural layout of thebathroom area. The size and shape of stone toilet trays could contrast and they were typically large enough to accommodate a person comfortably. The trays might have been rectangular, oval, or other shapes, with rounded edges for added comfort. Some stone toilet trays might have been embellished with decorative carvings, inscriptions, or patterns. These decorations could havehad cultural, religious, or aesthetic significance (Hanley, 2023). Archaeological excavations in Sirkap, Taxila have uncovered various stone toilet trays, in locations such as domestic areas and public buildings. These findings provide crucial evidence of the cleanliness practices and architectural sophistication of the time. The exact techniques and styles of toilet trays could have varied across different regions and time periods during the Indo-Scythian era (Michon, 2007).

These trays served practical purposes in facilitating waste disposal practices in ancient households and urban structures. They stand as valuable archaeological artifacts, offering the daily life and culture of the Indo-Scythian culture in the Gandhara region (Marshall, 1918: 476-512).

Chronology

Greek art gradually declined during the Indo-Scythian period, giving way to a greater prevalence of animal representations. The shift in scenes during the Indo-Scythian era is in line with their renowned focus on animal depictions (Borovka, 1928:72). The chronological framework, based on iconography and stylistic analysis, supports this observation. The earliest trays from the Greek period in Taxila depict Hellenistic themes with a higher quality of carving compared to the later period's toilet trays. The shape and figural decorations of Gandharan trays exhibit evident Western and Hellenistic influences. Both the traditional and Hellenistic periods commonly showcased mythological themes and decorative motifs within circular spaces (Dar, 1979: 143; Borovka, 1928: 73; Coomaraswamy, 1927: 49). Gandharan toilet trays constitute a distinctive category of artifacts that can be dated chronologically to a significant timeframe, ranging from the middle of the 2ndcentury BCE to the 2nd century CE. This period coincides with the resettlement of Central Asian populations, expelled by the Indo-Scythian rulers, and the subsequent reconstruction of the city of Taxila-Bhir-Mound at the new site of Sirkap. The emergence of these objects aligns with a dynamic phase in Indian history, characterized by political, social, and religious transformations initiated by the Indo-Scythian rulers (Dar, 1979, 141-184; Marshall, 1950: 493-497).

RESULT AND DISCUSSION

The depiction of animals on Sirkap toilet trays from the Indo-Scythian period is a fascinating aspect that reflects the artistic and cultural influences of the time. These representations provide valuable iconography and beliefs prevalent during the era. The Indo-Scythian period was characterized by a richblend of artistic styles and cultural influences, resulting in a diverse array of decorative elements in their artifacts. The Indo-Scythian period stands as a remarkable chapter in the history of the Indian subcontinent, marked by the blending of Indo-Greek and Scythians cultures. Located in the heart of the ancient Gandhara region, the city of Taxila, and its adjoining settlement, Sirkap, offer valuable archaeological insights into this intriguing era. Among the diverse range of artifacts unearthed at these sites, the discovery of toilet trays from the Indo-Scythian period holds a unique significance.

The Indo-Scythian period, which thrived between the 1st century BCE and the 1st century CE, witnessed a confluence of Hellenistic, Persian, and localGandharan influences, resulting in a unique blend of artistic expressions and customs. The significance of the Indo-Scythian toilet trays found in Sirkap, Taxila. We explore the historical context of the Indo-Scythian period, providing an overview of the cultural interactions and exchanges that shaped this distinctive epoch. By examining the toilet trays' design, materials, and contexts, we aim to understand their Furthermore; we investigate the potential influences and connections between the Indo-Scythian civilization and its neighboring regions.

By drawing upon primary archaeological evidence and scholarly sources, this research aims to contribute to a more comprehensive understanding of the Indo-Scythian period and the broader historical narrative of the ancient Gandhara region. As we unravel the story of these seemingly mundane but historically significant toilet trays, we embark on a journey to bridge the gap between the past and the present, offering a deeper appreciation of the rich cultural tapestry that once flourished in Sirkap during the Indo-Scythian era.

Depiction of Animals Representation

The use of animals on these trays likely served both practical and symbolic purposes, creating functional objects that also carried deeper meanings and significance for the people of that time. The depiction of animals on Sirkap toilet trays from the Indo-Scythian period is a fascinating aspect that reflects the artistic and cultural influences of the time. Some toilet trays may feature mythical creatures like griffins' dragons and crocodiles which were common in Indo-Scythian art and often symbolized guardianship and protection. The use of animal representations on Sirkap toilet trays not only adds aesthetic appeal but also provides valuable cultural and religious symbolism. The Indo-Scythian period was characterized by a rich blend of artistic styles and cultural influences, resulting in a diverse array of decorative elements in their artifacts. The use of animals on these trays likely served both practical and symbolic purposes, creating functional objects that also carried deeper meanings and significance for the people of that time.

While the exact depictions might contrast, common animals depicted on Sirkap toilet trays including Lions were often depicted on Indo-Scythian toilet trays, symbolizing power, strength, and royalty. They were associated with rulers and were likely used as a symbol of authority and protection. Their depiction on toilet trays might have been intended to bring prosperity and well-being to the household. Horses were essential in military and transportation contexts during the Indo-Scythian period. Their depiction on thetrays might have represented the importance of cavalry and the role of horses in warfare and trade. Deer were revered for their grace and were often associated with symbols of nature and the hunt. They might have been used onthe trays to signify the harmony between humans and nature. Various types of birds, such as peacocks or swans, could have been depicted on the trays, representing beauty, grace, and divine attributes.

CONCLUSION

The Indo-Scythian period in the Gandhara region birthed distinct art pieces, evolving from Indo-Greek influences to form unique characteristics. Among Sirkap treasures, the Indo-Scythian "toilet trays" stand out, typically ranging from 9 to 17.5 centimeters in diameter. Crafted from materials like steatite, phyllite, and schist, these trays exhibit a concave design adorned with intricate relief motifs. They present a combination of artistic craftsmanship and functionality, revealing cultural connections and technological expertise. Diverse designs grace the trays, featuring main motifs sculpted in high relief,

with backgrounds embellished by lotus petals and sun-ray motifs. Animal and human figures add symbolic depth. While not exhaustive due to emerging pieces, these trays unveil cultural influences, particularly Scythians, in their production. The classification into "palmetto-group" and "lotus-group" offers understanding, although undeviating progression remains elusive. The toilet tray chronology proves challenging, originating in the Hellenistic era and enduring through Indo-Scythian influence until the emergence of the Gandharan School around Kanishka reign. Foreign influences are attributed to Central Asia trade routes, shaped by Scythians culture. Depicting animals on these trays, such as horses reflecting military importance, adds depth to their aesthetics and symbolism. The toilet tray significance lies in their reflection of Indo-Scythian art diversity and amalgamation of cultures. Artisans used tools like chisels and hammers to shape limestone or sandstone into functionalforms. Trays were designed for comfort and often featured decorative carvings. These toilet trays provide a unique glimpse into the Indo-Scythian period, where art, culture, and technology converged.

REFERENCES

- Ahmed, N. (1958). The history and archaeology of Taxila. University of London, School of Oriental and African Studies (United Kingdom).
- Ali, I. (2006). Catalogue of Coins in the Peshawar Museum: An Introduction Frontier Archaeology, Vol. IV. (Catalogue of Indo-Greek, Indo-Scythian, and Indo-Parthian periods.
- Allchin, F.R., 1993, The urban position of Taxila and its place in Northwest India-Pakistan, in H. Spodek & D. Srinivasan (eds.), Urban Form and Meaning in South Asia, National Gallery of Art, SmithsonianInstitution, Washington, DC, pp. 69-81
- Bernard, P. (1994). The Greek kingdoms of central Asia. History of civilizations of Central Asia, 2, 99-129.
- Banerjee, G. N. (1920). Hellenism in ancient India. Butterworth.
- Borovka, G. (1928). Scythian Art, New York.
- Carter, M. L. (1968). Dionysiac aspects of Kushan art. Ars orientalis, 121-146.
- Coomaraswamy, A. (1927). The origin of the Buddha image. The Art Bulletin, 9, 4: 287–329.
- Dani, A. (1991). Bactrian and Indus Greeks: A Romantic story from their Coins (About.
- Dani, A. H. (2001). Taxila, The Metropolis of Gandhara, Journal of Asian Civilization, Vol. XIX, No.2. Islamabad.
- Dar, S. R. (1984). Taxila and the Western World. Lahore Pakistan.
- Durrani, F. A. (1997). "Excavation at Gor Khuttree: A Preliminary Note" Athariyat (Archaeology) (Vols. Vol. I,). Peshawar, Pakistan.
- Durrani, F. A. (1997). "Excavation at Gor Khuttree: A Preliminary Note" Athariyat (Archaeology), Vol. I, Peshawar, Pakistan.
- Durrani, F. A., Qamar, M. S., & Shah, N.S. (1997). Preliminary Report on Excavations at Manak Rai Dheri off Pannian Road, Haripur Valley. Athariyyat, Vol. I, 213–232.
- Dobbins, K. W. (1973). Gandharan Art from Stratified Excavations. East and West, 23(3/4), 279-294.
- Faccenna, D. (1980-81) Butkara I (Swat, Pakistan) 1956-1962. IsMEO Rep Mem, III 1-5. Rome.

- Francfort, Henri-Paul. Ligabue, Giancarlo and Samashey, Zainnullah. (2006). "The Gold from the Griffins: Recent Excavations of the Frozen Tomb in Kazakhstan", The Golden Deer of Eurasia: Perspectives on the Steppe Nomads of the Ancient World Edi by John A.
- Khan, R. (1998). Coinage in Pakistan, The Glory that was Pakistan 50 Years of Archaeology Research in Pakistan, A Photographic Exhibition, Feb-March 1998, Edited by F.A Durrani and Ihsan Ali, Peshawar, Pakistan.
- Lohuizen-de-Leeuw, J.E.V. (1949). The Scythian Period: An approach to History, Art, Epigraphy and Palaeography of North India from 1st Century BC to the 3rd Century AD. Leiden.
- Muhammad, J., & Jan, Z. (2023). Maues Coins: Exploring the Significance of Animals Symbolism and Analysis. Global Social Sciences Review, Vol. VIII, No. I, pp 212 223
- Muhammad, J., & Jan, Z. (2023). Exploring the early Political History of the Indo-Scythian in Gandhara with special reference to Maues. PalArch's Journal of Archaeology of Egypt/Egyptology, 20 (2), 1179-1189.
- Marshall, J. (1945). Taxila: An Illustrated Account of Archaeological Excavations, Carried Out at Taxila Under the Orders of the Government of India Between the Years 1913 and 1934, 1-3, 2006). Karachi, Pakistan: Royal Book Company (Reprinted.
- Marshall, J. (1947). Greeks and Sakas in India. Journal of the Royal Asiatic Society, 79(1-2), 3-32.
- Marshall, J. (2013). A guide to Taxila. Cambridge University Press.
- Michon, D. M. (2007). Material matters: archaeology, numismatics, and religion in Early Historic Punjab. University of California, Santa Barbara.
- Mukherjee, T., & Dasgupta, N. (Eds.). (2023). Religion, Landscape and Material Culture in Pre-modern South Asia. Taylor & Francis.
- Nasim Khan, M. (2008). Excavations at Aziz Dheri A Stupa Settlement Site in Ancient Gandhara. Glimpses from Field Campaigns 1993 and 2007/08 Gandharan Studies.
- Olivieri, L.M. et al. (2014) The Last Phases of the Urban site of Barikot-ghwandai (Barikot). The Buddhist sites of Gumbat and Amluk-dara (Barikot). ACT Reports and Memoirs, 2, Lahore
- Samad, R. U. (2011). The grandeur of Gandhara: the ancient Buddhist civilization of the Swat, Peshawar, Kabul, and Indus Valley. Algora Publishing.
- Siudmak, J. (2013). The Hindu-Buddhist sculpture of ancient Kashmir and its influences (Vol. 28), Brill.
- Tiwary, S. K., & Saurabh, S. (2018). Archaeological Evidence of Toilet System in Ancient India. J. Multidiscip. Stud. Archaeol, 6, 764-781.



Plate 1: Stone Toilet Tray, Gandhara, with the Image of Indo-Scythian king (Ladislav, 2000, 138)



Plate 2: Stone Toilet Tray, Sirkap Taxila Indo-Scythian period (Dar, 1984 & Francfort 1979)



Plate 3: Stone Toilet Tray, Sirkap Indo-Scythian period (Dar, 1984 & Francfort 1979)



Plate 4: Winged hippo camp, Sirkap Indo-Scythian period (Dar,1984 & Francfort 1979)



Plate 5: Winged hippo camp, Sirkap Indo-Scythian period (Dar, 1984 & Francfort 1979



Plate 6: Winged hippo camp, body decorated with scales (Dar,1984 & Francfort 1979)



Plate 7: Toilet Tray (Mica Ceous Steatite), period IV, Sirkap, Dar,1984 & Francfort 1979)



Plate 8: showing a hippo camp, from period IV, Sirkap, (Dar, 1984 & Francfort 1979)



Plate 9: Stone Toilet Tray showing horses from period IV, Sirkap, (Dar,1984 & Francfort 1979)



Plate 10: Showing male and female figures, period IV, Sirkap, (Dar,1984 & Francfort 1979)



Plate 11: Semi-nude female with a child riding a hippocamp, (Dar,1984 & Francfort 1979)



Plate 12: Showing a winged hippocamp, Sirkap City, (Dar, 1984 & Francfort 1979)