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RITUAL WATER ARCHITECTURE IN KHARKHORUM: THE ARTIFICIAL LAKE WITHIN ERDENE ZUU MONASTERY

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Abstract

Archaeological investigations conducted by the Mongolian–German Kharkhorum Expedition have demonstrated that Erdene Zuu Monastery occupies the former imperial palace precinct of Kharkhorum, the former capital of the Mongol Empire. Among the most significant features preserved within the enclosure is a large artificial lake connected to a canal system drawing water from the Orkhon River. Although documented in nineteenth-century maps and photographs, the lake has received little scholarly attention and has generally been interpreted as either a monastic or utilitarian feature.

This article argues that the reservoir formed part of the ceremonial and cosmological landscape of the Mongol imperial palace. Drawing upon archaeological evidence, historical sources, and comparative material from Xiongnu, Uighur, and Mongol traditions, the study examines the relationship between artificial lakes, sacred kingship, oath-taking rituals, and imperial legitimacy in Inner Asia. The article proposes that the lake at Kharkhorum functioned not merely as a hydraulic installation, but as a consciously constructed ritual feature embedded within the symbolic landscape of Mongol imperial authority.

Keywords: *Erdene Zuu, Kharkhorum, lake and water systems, canal, solar and lunar worship*

Introduction

Over the past several decades, archaeological research has substantially transformed scholarly understanding of Kharkhorum, the thirteenth-century capital of the Mongol Empire. Excavations conducted by the Mongolian–German Kharkhorum Expedition have demonstrated that the enclosure of the present-day Erdene Zuu Monastery occupies the former precinct of the imperial palace complex. These investigations have significantly revised earlier interpretations of the site and revealed that the political and ceremonial center of the Mongol capital was considerably more architecturally complex than previously assumed. Among the most intriguing features preserved within the enclosure is a large artificial lake located in the southeastern section of the monastery grounds, together with the remains of a canal system that once supplied it with water from the Orkhon River. Although this reservoir was still visible and functional into the late nineteenth century, as documented in the maps and photographs of

V. V. Radlov's Orkhon Expedition, its historical and ceremonial significance has received surprisingly limited scholarly attention.

Previous discussions have generally treated the lake either as a late monastic feature associated with Erdene Zuu or as a practical hydraulic installation connected to irrigation and water management. Yet the deliberate geometry of the reservoir, its position within the palace enclosure, and its relationship to broader Inner Asian traditions of ritual water architecture suggest that the feature may have possessed a more complex symbolic and political function. The problem is particularly important because studies of Mongol urbanism have often emphasized the mobile and pragmatic character of nomadic imperial culture while paying comparatively little attention to ceremonial landscapes, cosmological planning, and the symbolic use of architectural space.

This article proposes that the artificial lake within the Erdene Zuu enclosure should be understood not merely as a utilitarian reservoir, but as an integral component of the ceremonial landscape of the Mongol imperial palace at Kharkhorum. By combining archaeological evidence, historical cartography, medieval travel accounts, textual sources, and comparative material from earlier Inner Asian states, the study examines the possibility that the lake functioned as a ritual and cosmological feature associated with enthronement ceremonies, oath-taking practices, celestial symbolism, and the sacral legitimation of political authority. Particular attention is given to earlier traditions of artificial lakes among the Xiongnu and later parallels preserved within Uighur and Mongol imperial culture.

Methodologically, this study adopts an interdisciplinary approach integrating archaeological data, historical geography, textual analysis, and comparative ritual studies. Rather than examining the reservoir solely as an isolated hydraulic feature, the article situates it within a broader framework of Inner Asian ceremonial topography and cosmological kingship. Through this approach, the lake may be reconsidered as part of a consciously constructed ritual environment in which water, sacred space, and imperial authority were closely interconnected.

Reinterpreting the lake in this manner has broader implications for the study of Mongol imperial ideology and urban planning. It suggests that Kharkhorum was not simply an administrative or economic center, but also a carefully organized ceremonial landscape in which architecture, water, and cosmological symbolism were materially integrated into the performance of rulership.

1. The Artificial Lake and Hydraulic System of Erdene Zuu

Since the earliest investigations of the ruins of ancient Kharkhorum, scholars have noted the existence of a canal system diverting water from the Orkhon River into the urban center. Among the first to document this hydraulic network was V. V. Radlov's Orkhon Expedition, which conducted pioneering archaeological and topographical surveys of the region in the late nineteenth century. The maps produced by the expedition depict both the ruins of Kharkhorum and the enclosure of Erdene Zuu Monastery, recording the presence of two lakes: one situated within the monastery walls and another outside the enclosure.¹ Radlov's plans further indicate that both bodies of water were supplied through an artificial canal connected to the Orkhon River.

According to the expedition's documentation, the canal measured approximately five kilometers in length and between one and one and a half meters in width. The channel originally branched from the Orkhon River near the area presently known as Tolgoin Boolt in modern Kharkhorin soum. Although later agricultural irrigation works destroyed portions of the original system, segments of the canal route remain faintly visible in the landscape today. The course appears to have passed through the center of

¹ V. V. Radlov, "Предварительный отчёт о результатах снаряженной с Высочайшего соизволения Императорскою Академиею Экспедиции для археологического исследования бассейна р. Орхона [Preliminary Report on the Results of the Expedition for Archaeological Research of the Orkhon River Basin, Dispatched by the Imperial Academy with Imperial Permission]," in *Сборник Трудов Орхонской Экспедиции [Collected Works of the Orkhon Expedition]* (St. Petersburg, 1892), 120.

present-day Kharkhorin, continued near the modern detention facility, and entered the northwestern sector of the Erdene Zuu enclosure.

Of the two lakes recorded by Radlov, the outer body of water does not appear to have been an intentionally constructed reservoir. Rather, it was likely formed after the channel supplying the inner lake became blocked or diverted, resulting in the accumulation of standing water outside the monastery walls. Supporting evidence for this interpretation survives in an early nineteenth-century panoramic painting of Erdene Zuu Monastery, which clearly depicts water entering through a specially constructed opening west of the northern gate and flowing directly into the lake situated south of Abtai Sain Khan's residential platform (Fig. 1).

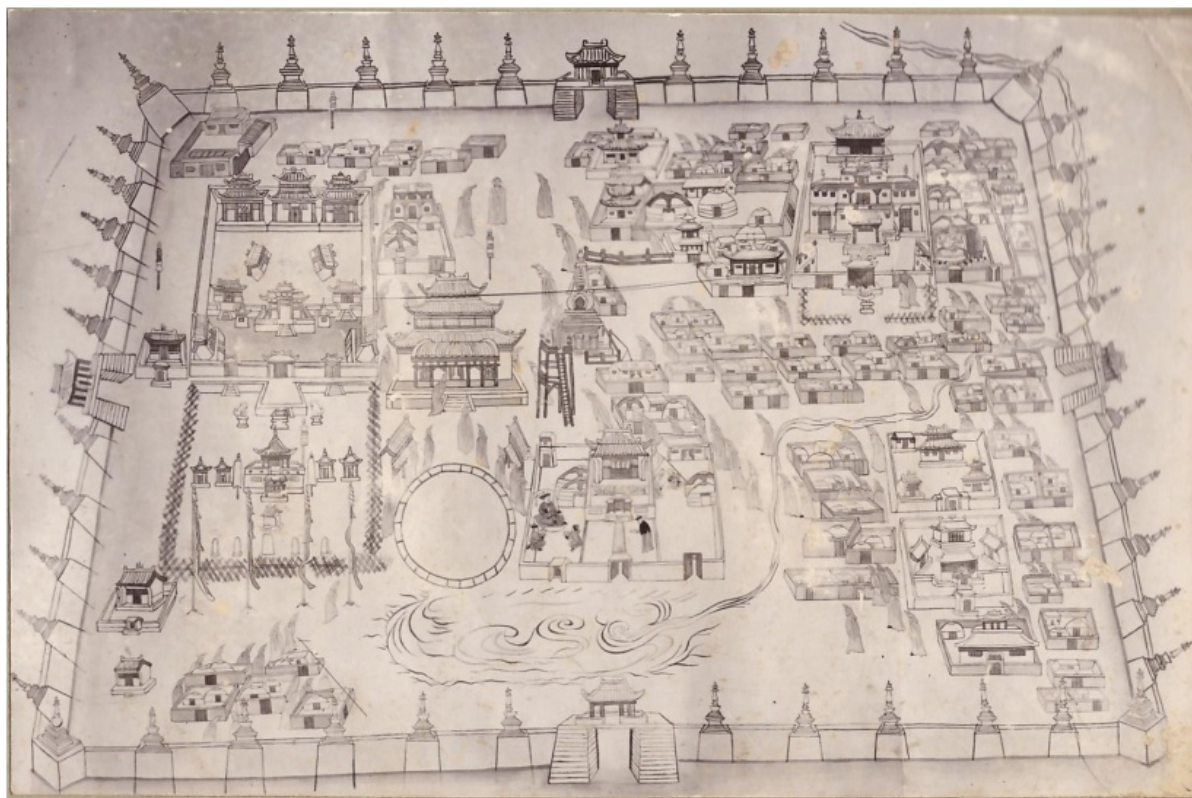


Figure 1. Panoramic depiction of Erdene Zuu Monastery, early nineteenth century, illustrating the canal system and the artificial lake situated within the monastery enclosure.

For these reasons, the lake located within the monastery enclosure should be understood as a deliberately constructed artificial reservoir rather than a naturally formed depression. The basin appears to have been rectangular in design, measuring approximately 80 meters from west to east and 110 meters from north to south, with an estimated depth of around 1.5 meters. Its geometric form strongly suggests intentional planning and construction. Significantly, the reservoir occupies the southeastern section of the enclosure, a placement that may itself have carried symbolic or ceremonial meaning within Inner Asian spatial traditions.

The survival of both the lake and canal into the late nineteenth century is of considerable importance. When Radlov visited Erdene Zuu, the hydraulic system was still sufficiently preserved to be photographed and mapped in detail. These visual records constitute invaluable evidence for reconstructing the spatial and environmental organization of the former imperial center (Figs. 2, 3).² More importantly, the existence of a large artificial reservoir within the palace enclosure raises broader

² Ibid., Tables XXXVI, XXXVII.

historical questions. Why was such a lake constructed within the imperial precinct? Did it originate during the Mongol imperial period or belong to a later phase associated with the monastery? And to what extent might it reflect older Inner Asian traditions linking water, rulership, and ceremonial space?



Figure 2. Map of Kharkhorum and Erdene Zuu Monastery produced by the expedition of V. V. Radlov in 1891, showing the canal system and the locations of the two lakes associated with the site.



Figure 3. Photograph of the lake within Erdene Zuu Monastery. Photographed by V. V. Radlov, 1891.

These questions form the basis for reconsidering the artificial lake not simply as a utilitarian hydraulic feature, but as a potentially significant component of the ritual and cosmological landscape of Kharkhorum.

2. Reassessing the Imperial Palace of Kharkhorum

The imperial palace of Kharkhorum, celebrated in historical accounts for the famous Silver Tree described by William of Rubruck, has long occupied a central place in scholarship concerning the Mongol capital. Early archaeological interpretations, however, identified the palace in a different location from that accepted today. During the Mongolian–Soviet expeditions of 1948–1949, the remains of a large sixty-four-pillared structure enclosed within a separate fortified compound southwest of the city walls were interpreted as the palace of Ögödei Khan. For much of the twentieth century, this identification remained largely unquestioned and significantly shaped scholarly reconstructions of the urban layout of Kharkhorum.³

Beginning in 1999, however, excavations conducted by the Mongolian–German Kharkhorum Expedition fundamentally altered this interpretation. Archaeological investigations demonstrated that the supposed palace structure was in fact the remains of a monumental Buddhist temple completed in 1256 and later, in 1346, granted the imperial title “Pavilion for the Flourishing of the Yuan State” or

³ S. V. Kiselev, “Строительные материалы Кара-Корума [Building Materials of Kara-Korum],” in *Древнемонгольские города [Ancient Mongolian Cities]* (Издательство “НАУКА,” 1965), 316–22.

“Hall of the Great Glorious Temple.”⁴ This reassessment required a substantial reconsideration of the location and organization of the actual imperial palace complex.

At the same time, archaeological excavations conducted beneath the walls of Erdene Zuu Monastery revealed evidence of a much earlier monumental enclosure underlying the later monastic structure. Six test excavations carried out along the western, eastern, northern, and southern walls of the monastery exposed the remains of a massive rammed-earth fortification wall approximately six meters thick, externally faced with brick and reinforced internally with wooden structural elements. Scientific dating and stratigraphic analysis demonstrated that this wall belonged to a unified construction phase corresponding to the period of the Mongol Empire and represented the original enclosure of the imperial palace precinct.

These findings correspond closely with descriptions recorded by thirteenth-century travelers and envoys who visited Kharkhorum.⁵ William of Rubruck described a walled imperial compound within the city, while other contemporary accounts likewise emphasize the monumental and fortified nature of the royal residence. Archaeological evidence from Erdene Zuu therefore provides important material confirmation for these historical descriptions and strongly supports the conclusion that the monastery occupies the former site of the imperial palace complex.

Additional support for this interpretation comes from the work of the late Dr. D. Bayar, who argued that the ruins known historically as Takhai retained their sacred and political significance long after the decline of the Mongol Empire. Historical sources referring to the “old ruins of Takhai” and the “old wall” suggest that the site continued to be recognized as a place associated with imperial authority and dynastic memory. According to Bayar, although the palace structures had partially collapsed by the late medieval period, the overall form of the complex remained sufficiently visible that enthronement ceremonies and other rituals associated with the descendants of the imperial lineage may still have been performed there.⁶

These observations are particularly significant for interpreting the artificial lake within the Erdene Zuu enclosure. If ceremonial functions connected to kingship and imperial legitimacy continued at the site after the decline of the empire, then the survival of ritual architectural elements within the palace complex becomes highly plausible. The lake, therefore, should not be viewed merely as an isolated hydraulic installation, but rather as a potential component of a broader ceremonial and cosmological landscape associated with the political theology of Mongol rulership.

Reconsidering the palace complex in this manner shifts attention away from purely administrative or residential interpretations of Kharkhorum and instead emphasizes the city’s role as a ritualized imperial center. Within such a framework, architectural features such as reservoirs, canals, gates, and spatial orientation may have carried meanings extending beyond practical utility, participating instead in the symbolic articulation of sacred kingship and imperial order.

3. Ritual Water Architecture in Inner Asian Imperial Traditions

The presence of an artificial lake within the palace enclosure of Kharkhorum should not be viewed as an isolated phenomenon unique to the Mongol Empire. Archaeological and historical evidence from earlier Inner Asian states suggests a long-standing tradition of constructing reservoirs, ponds, and artificial lakes within royal and ceremonial precincts. These features appear to have functioned not

⁴ U. Erdenebat, *Монголын эртний нийслэл Хархорум [The Ancient Mongolian Capital Kharkhorin]* (Ulaanbaatar, 2020), 317.

⁵ Erdenebat, *Монголын эртний нийслэл Хархорум [The Ancient Mongolian Capital Kharkhorin]*, 169.

⁶ D. Bayar, “Тахай балгас хэмээх учирт [On the Matter of the Takhai Ruins],” *Studia Archaeologica* 9, no. 19 (Ulaanbaatar 2010): 343–63.

merely as practical water installations, but as architecturally and symbolically significant elements embedded within broader cosmological and political landscapes.

In the context of Inner Asian imperial traditions, water possessed meanings extending far beyond subsistence or irrigation. Lakes, springs, and constructed reservoirs frequently served as sacred spaces associated with purification, celestial symbolism, oath-taking, enthronement rituals, and the sacral legitimation of political authority. The reflective surface of still water was often understood as a liminal medium connecting Heaven, Earth, and rulership, while the deliberate placement of water features within palace compounds suggests that they formed an important component of ceremonial spatial organization.

The ritual significance of water among the Mongols is also reflected in medieval eyewitness accounts. Giovanni da Pian del Carpine, who visited the Mongol Empire in the mid-thirteenth century, noted that certain springs and water sources were regarded as sacred and protected by strict prohibitions. According to his account, washing clothing or defiling these waters was forbidden, indicating that concepts of ritual purity and sacred space were closely associated with water in Mongol society.⁷ Carpine's observations further suggest that the palace environment itself was governed by elaborate ceremonial restrictions and cosmological principles.

William of Rubruck likewise recorded the existence of sophisticated hydraulic systems at Kharkhorum, including canals used to divert water throughout the city for gardens, mills, and other installations.⁸ His testimony demonstrates that the Mongols possessed both the technical capability and the architectural intention to incorporate managed water systems into urban and ceremonial environments. The existence of such infrastructure makes it entirely plausible that the artificial lake within the Erdene Zuu enclosure formed part of a consciously planned imperial landscape rather than an incidental or purely utilitarian feature.

Within Mongol and broader Inner Asian cosmology, the ruler was often conceived as a figure whose authority derived from Heaven (Tengri). In this context, water could function symbolically as a reflective medium linking terrestrial rulership to celestial order. The reflective surface of lakes and reservoirs may therefore have played a role in rituals involving the sun, moon, and stars, particularly during ceremonies connected to enthronement, oath-taking, and imperial legitimacy. Such interpretations gain further significance when considered alongside earlier traditions preserved among the Xiongnu and Uighurs, where reservoirs and sacred waters appear closely associated with royal ritual and political symbolism.

The following sections examine these traditions in greater detail through archaeological and textual evidence relating to artificial lakes in Xiongnu palace complexes, the cosmological symbolism of water in Inner Asian rulership, and the relationship between lakes, oaths, and imperial legitimacy within Mongol political culture.

3.1. Artificial Lakes in Xiongnu Palace Complexes

Archaeological evidence demonstrates that the construction of artificial lakes and reservoirs within royal precincts has deep roots in the political and ceremonial traditions of Inner Asia. Several fortified settlements associated with the Xiongnu contain reservoirs or ponds situated within or adjacent to palace compounds, suggesting that such hydraulic features formed an important component of elite architectural planning. Among the most significant examples are the sites of Haragiin Dörvöljin in Ölziit soum of Arkhangai Province, Owootyn Baruun Khavtsal in Bayan-Ovoo soum of Khentii Province, Gua Dov in Bayanjargalan soum of Töv Province, and Khüreet Dov in Möngönmorit soum. These

⁷ Giovanni da Pian del Carpine, *The Story of the Mongols Whom We Call the Tartars*, trans. John J. Saunders (Hakluyt Society, 1955), 18–20.

⁸ William of Rubruck, *The Journey of William of Rubruck to the Eastern Parts, 1253–55*, trans. Peter Jackson and David Morgan (Hakluyt Society, 1990), 221–23.

settlements contain reservoirs, ponds, and water-storage structures of varying sizes and forms integrated into fortified urban layouts.⁹

Most of the reservoirs identified within these Xiongnu enclosures possess geometric or rectilinear forms, suggesting deliberate architectural planning rather than natural accumulation of water. Particularly important is the site known as Haragiin Dörvöljin, located in Bodonch bag of Ölziit soum, Arkhangai Province. The settlement contains double earthen fortification walls, with the outer enclosure measuring approximately 553×490 meters and the inner enclosure 265×200 meters. At the center of the inner enclosure are two large raised platforms, likely representing the remains of a central palace complex. In the southwestern portion of the enclosure, archaeologists identified a trapezoidal reservoir measuring approximately 94.5×65 meters and nearly two meters deep (Fig. 4).¹⁰



Figure 4. Aerial photograph of the Xiongnu fortified settlement known as Haragiin Dörvöljin, showing the double enclosure walls and the trapezoidal reservoir situated within the palace precinct, 2019.

The ceremonial significance of this complex is further suggested by the discovery of roof tiles inscribed in Chinese characters with the title “Son of Heaven Chanyu.”¹¹ Such finds indicate that the site was directly associated with royal authority and the ideological language of sacral kingship. Historical sources similarly describe the ritual activities of the Xiongnu rulers and aristocracy, noting that sacrifices to Heaven, ancestral spirits, the sun, and the moon were conducted at specific times of the year within royal ceremonial centers. According to the *Hou Hanshu*, the Xiongnu assembled in the first, fifth, and ninth months to perform state rituals dedicated to Heaven and the spirits.¹²

⁹ G. Eregzen and S. Chuluun, eds., *Монголын эртний хот суурин, Х боть* [Ancient Cities and Settlements of Mongolia, Volume X], vol. 10 (Ulaanbaatar, 2020), 36–67.

¹⁰ T. Iderkhangai et al., “Архангай аймгийн Өлзийт сумын нутаг дахь Харганы хөндийд орших Хүннүгийн хотын тууринд явуулсан малтлага судалгаа [Excavation Research at the Xiongnu City Ruins in the Khargany Valley, Ölziit Sum, Arkhangai Aimag],” in *Монголын Археологи 2020 ЭШХЭ* [Mongolian Archaeology-2020: Proceedings of the Academic Conference] (2020), 24–28.

¹¹ Ibid., p. 24

¹² Fan Ye, *后汉书* [Book of the Later Han], Juan 89 (Zhonghua Shuju, n.d.), 2892.

Archaeological evidence from elite Xiongnu burials further supports the cosmological significance of celestial symbolism in Xiongnu political ideology. Grave goods and coffin ornaments fashioned from gold, silver, iron, and birch bark frequently depict solar and lunar motifs, suggesting that the sun, moon, Heaven, and celestial bodies occupied a central place in elite ritual culture. The ruler, identified ideologically as the “Son of Heaven,” appears to have derived legitimacy through symbolic association with celestial order.

Within this broader context, artificial reservoirs inside palace complexes should not be interpreted merely as decorative or practical installations. Rather, they may have functioned as ceremonial spaces connected to rites of rulership, oath-taking, purification, and cosmological observance. Historical descriptions indicate that major sacrificial ceremonies were held during periods associated with important celestial alignments, particularly in the fifth month of the year. It is therefore possible that the reflective surfaces of ritual lakes and reservoirs were intentionally incorporated into ceremonies involving the symbolic interaction of the sun, moon, Tengri, and political authority.

The architectural parallels between these Xiongnu reservoirs and the artificial lake within the Erdene Zuu enclosure are striking. Both involve geometrically planned water features situated within fortified ceremonial precincts and associated with centers of political authority. Although direct continuity cannot be demonstrated conclusively, the similarities suggest the persistence of a broader Inner Asian tradition in which water formed an integral element of royal ceremonial landscapes. Within such a tradition, the artificial lake at Kharkhorum may represent not an isolated hydraulic feature, but the continuation and adaptation of much older cosmological and political concepts embedded within imperial architecture.

3.2. *Water, Cosmology, and Sacred Kingship*

The ritual importance of water in Inner Asian imperial culture cannot be understood solely in practical or environmental terms. Beyond its utilitarian function, water occupied a central place within broader cosmological conceptions of rulership, sacred geography, and the relationship between Tengri and political authority. Lakes, springs, rivers, and artificially constructed reservoirs frequently functioned as symbolic spaces through which rulers articulated their legitimacy and connection to the celestial order.

Among the Xiongnu and later Inner Asian empires, the ruler was ideologically associated with Tengri and often represented as the “Son of Tengri” (Heaven). Historical and archaeological evidence suggests that celestial symbolism—particularly that associated with the sun, moon, and stars—formed an essential component of royal ritual practice. The reflective surface of still water may therefore have possessed ritual significance as a medium through which celestial phenomena could be visually and symbolically integrated into ceremonial acts. In this context, reservoirs and lakes within palace complexes may have functioned as cosmological mirrors linking terrestrial authority to the heavens above.

Celestial symbolism associated with sovereignty also appears prominently in *The Secret History of the Mongols*. When Yesükhei Ba’atur and the young Temüjin visited Dei Sechen, the latter recounted a dream in which a white falcon descended clutching the sun and moon in its talons. Dei Sechen interpreted this vision as an auspicious sign foretelling the future greatness and heavenly destiny of Temüjin’s lineage.¹³ The imagery of the sun and moon held together by a sacred bird appears to reflect broader Inner Asian concepts linking celestial bodies, divine favor, and royal legitimacy. Within this symbolic framework, the ritual importance attributed to lakes and reflective waters may likewise be understood as part of a cosmological tradition in which rulership was materially connected to the heavens.

¹³ *The Secret History of the Mongols*, trans. Igor de Rachewiltz (Leiden: Brill, 2006), §63.

Historical sources describing Xiongnu ritual practices indicate that important state ceremonies were performed during particular seasons associated with celestial transitions and astronomical alignments. It is possible that rituals involving sacrifices, oath-taking, or royal legitimization occurred when the reflections of the sun and moon appeared simultaneously upon the surface of ritual waters. Such ceremonies would have materially enacted the symbolic union between Tengri, cosmic order, and imperial authority. Although direct textual evidence for such practices remains limited, the spatial placement and deliberate construction of reservoirs within royal precincts strongly suggest ceremonial intent.

These cosmological associations may also help explain the preference for geometric reservoir forms within Inner Asian palace architecture. The widespread Eurasian maxim “Heaven is round, Earth is square” appears in various cosmological traditions and may preserve concepts connected to sacred spatial organization. Within this framework, the construction of rectangular or trapezoidal reservoirs inside palace compounds may have represented attempts to materialize cosmic order architecturally. Water, enclosed within geometrically ordered space, became part of a ritual landscape through which the ruler’s relationship to Tengri was expressed and legitimized.

Artificial lakes and reservoirs are likewise attested within later Mongol and Yuan imperial centers. Both Shangdu and Dadu incorporated substantial artificial water features into their urban layouts, demonstrating that hydraulic symbolism continued to play a role within imperial architectural planning. Although the specific ritual functions of these reservoirs are not always explicitly described in surviving sources, their placement within palace and ceremonial environments suggests that water remained closely connected to concepts of rulership, cosmology, and imperial order.

The spatial placement of the artificial lake within the Erdene Zuu enclosure is therefore particularly significant. Located in the southeastern section of the palace precinct, the reservoir corresponds closely with orientations associated in many Inner Asian traditions with the rising sun and auspicious directional symbolism. Similar southern or southeastern positioning can also be observed in several earlier Xiongnu palace complexes. Such spatial correspondences do not in themselves prove direct continuity, yet they strongly suggest the persistence of broader ceremonial principles governing the organization of royal landscapes across Inner Asian imperial traditions.

Viewed within this wider cosmological framework, the artificial lake at Kharkhorum appears increasingly difficult to interpret as a merely practical hydraulic installation. Rather, its geometry, placement, and relationship to earlier traditions suggest that it formed part of a consciously constructed ceremonial environment in which water functioned as a symbolic medium connecting sacred kingship, cosmic order, and imperial authority.

3.3. Lakes, Oaths, and Imperial Legitimacy

Within Inner Asian political culture, lakes and sacred waters appear to have been closely connected not only to cosmological symbolism, but also to the ceremonial affirmation of political authority and oath-bound unity. Historical and literary sources associated with the Mongol Empire preserve traces of traditions in which water functioned as a ritual medium in ceremonies of enthronement, alliance, sacrifice, and dynastic legitimacy.

One of the most significant examples appears in *The Secret History of the Mongols*, which records that in 1206 Temüjin was proclaimed Chinggis Khan at a place known as Khökh Nuur (“Blue Lake”) at Khar Zurkh.¹⁴ Although the text does not describe the ritual setting in detail, the association between enthronement and a sacred lake strongly suggests that bodies of water possessed ceremonial and political significance within Mongol imperial culture. Water in such contexts may have functioned not merely as

¹⁴ Sh. Choimaa, ed., *Монголын нууц товчоо* [*The Secret History of the Mongols*] (Ulaanbaatar, 2011), 70.

a natural backdrop, but as an active symbolic component in rites connecting rulership to Tengri and ancestral legitimacy.

Additional evidence appears in Yuan-period historical sources. One account records that in 1258 Möngke Khan and assembled nobles gathered near a sacred lake called Khökh Nuur to perform sacrifices at the “Mountain of the Sun and Moon” (*Riyue Shan* 日月山).¹⁵ The close association between lakes, celestial symbolism, sacrifice, and political assembly suggests the persistence of ritual traditions in which sacred landscapes formed an essential setting for the enactment of imperial authority. Although no surviving source explicitly states that an artificial reservoir was constructed within the palace precinct of Kharkhorum itself, it remains plausible that the lake inside the Erdene Zuu enclosure functioned as a symbolic evocation of these earlier sacred waters associated with Chinggis Khan and imperial legitimacy.

The ritual and political significance of water is further reflected in a well-known phrase preserved in *The Secret History of the Mongols*:

*“The waters of Tseel dried up,
The white stone cracked.”*¹⁶

The phrase appears following the death of Yesükhei Ba’atur and reflects a moment of political fragmentation and ritual disintegration within the ancestral Mongol community. In this context, the drying of sacred waters and the cracking of the white stone symbolized not simply physical destruction, but the collapse of sacred order, dynastic continuity, and oath-bound unity previously maintained under the authority of the deceased ruler.

The expression may preserve traces of older ritual traditions associated with sacred lakes and political legitimization. The “white stone” in particular may refer symbolically to an inscribed stone connected to royal enthronement or the ceremonial recognition of sovereignty. This possibility gains significance when considered alongside archaeological discoveries from the Uighur capital of Khar Balgas. Excavations conducted by the Mongolian–German “Orkhon” Project recovered elongated white stones bearing Chinese inscriptions, including examples such as *Yuce*, associated with the name of the Uighur ruler Joali Khan.¹⁷ Significantly, some inscribed stones were discovered within palace wells or water-related contexts.

These finds raise the possibility that inscribed stones associated with rulers were intentionally deposited, broken, or returned to sacred waters during rituals connected to death, succession, or the transfer of authority. Water in such cases functioned not merely as a ceremonial backdrop, but as an active medium through which political legitimacy and sacred kingship were materially enacted. Although direct continuity between Uighur and Mongol practices cannot be demonstrated conclusively, the persistence of similar symbolic motifs suggests the survival of broader Inner Asian ritual concepts linking water, rulership, and sacred authority.

The placement of reservoirs near the southern or southeastern sectors of palace entrances may likewise reflect symbolic traditions associated with prosperity, blessing, and cosmic renewal. Certain concepts preserved in later Mongolian ethnographic traditions describe water near entrances as representing abundance, flourishing populations, and auspicious fortune “spreading like the rising sun across the sacred sea.” The continued use of wave and water motifs on the entrances of Mongolian gers may preserve echoes of these much older cosmological traditions.

¹⁵ Дай Юань улсын бичиг [*Records of the Great Yuan Dynasty*] (Hohhot, 1987), 64–65.

¹⁶ Choimaа, *Монголын нууц товчоо* [*The Secret History of the Mongols*], 32.

¹⁷ U. Erdenebat et al., “Монгол-Германы хамтарсан ‘Орхон’ экспедицийн 2014 оны хээрийн шинжилгээний ажлын тухай [On the 2014 Field Research of the Mongolian-German Joint ‘Orkhon’ Expedition],” in *Монголын Археологи-2014* [*Mongolian Archaeology-2014*] (Ulaanbaatar, 2015), 121–30.

Viewed collectively, the archaeological, textual, and symbolic evidence suggests that sacred waters occupied an important place within the ritual language of Inner Asian rulership. In this broader context, the artificial lake within the Erdene Zuu enclosure may plausibly be interpreted not simply as a hydraulic installation, but as part of a ceremonial landscape associated with oath-taking, enthronement, dynastic continuity, and the cosmological legitimation of imperial authority.

4. Interpreting the Artificial Lake Within the Imperial Palace of Kharkhorum

The cumulative archaeological, historical, spatial, and comparative evidence strongly suggests that the artificial lake within the enclosure of Erdene Zuu Monastery was not a purely practical hydraulic installation, but rather an intentional component of the ceremonial landscape of the Mongol imperial palace at Kharkhorum. Its carefully planned geometric form, its integration into a canal system connected to the Orkhon River, and its placement within the southeastern sector of the palace enclosure collectively indicate a degree of symbolic and architectural intentionality extending beyond ordinary water management.

The reinterpretation of the reservoir as a ritual feature is further strengthened when viewed within the broader context of Inner Asian imperial traditions. Earlier Xiongnu palace complexes incorporated geometrically planned reservoirs closely associated with centers of political authority and ceremonial activity, while historical sources describing Mongol and Yuan ritual practices repeatedly emphasize the importance of sacred lakes, celestial symbolism, and water-related ceremonies connected to rulership. Although direct continuity across these traditions cannot always be demonstrated conclusively, the persistence of similar spatial patterns, symbolic associations, and ritual concepts suggests the existence of a long-standing Inner Asian tradition of ritual water architecture.

The evidence also indicates that Kharkhorum should be understood not merely as an administrative or economic center, but as a carefully organized ceremonial environment shaped by cosmological principles. The artificial lake appears to have participated in this broader symbolic landscape through its possible associations with enthronement rituals, oath-taking ceremonies, celestial observation, and the sacral legitimation of imperial authority. In this sense, the reservoir formed part of a ritual topography in which architecture, water, and political theology were materially interconnected.

Such an interpretation also contributes to the growing reassessment of Mongol urbanism. Earlier scholarship frequently characterized nomadic imperial centers as comparatively pragmatic, temporary, or lacking the ceremonial planning associated with sedentary civilizations. Yet the evidence from Kharkhorum increasingly demonstrates that Mongol imperial architecture possessed substantial symbolic and ideological complexity. The integration of canals, reservoirs, monumental enclosures, and ritual spatial organization suggests that the city was designed not only to administer empire, but also to materially express sacred kingship and cosmic order.

At the same time, caution remains necessary. Many aspects of the reservoir's precise function remain hypothetical due to the limited survival of direct textual references and the incomplete archaeological investigation of the lake basin itself. Interpretations concerning celestial reflection, oath rituals, and enthronement practices should therefore be understood as plausible reconstructions grounded in comparative evidence rather than definitive conclusions. Nevertheless, the convergence of archaeological data, historical testimony, and broader Inner Asian ritual traditions provides a compelling basis for reconsidering the role of the lake within the palace complex.

Future archaeological investigation of the reservoir basin, surrounding architectural features, and associated hydraulic systems may help clarify the chronology and function of the lake more precisely. Environmental sampling, stratigraphic excavation, and geophysical survey may further reveal whether ritual deposits, constructed embankments, or other ceremonial features survive beneath the present surface. Such research has the potential not only to refine our understanding of Kharkhorum itself, but

also to illuminate broader questions concerning sacred kingship, ritual landscapes, and cosmological urbanism across Inner Asia.

Conclusion

This study has proposed a reinterpretation of the artificial lake within the enclosure of Erdene Zuu Monastery as a deliberately constructed ceremonial feature associated with the imperial palace of Kharkhorum. Archaeological investigations conducted by the Mongolian–German Expedition have demonstrated that the monastery occupies the former palace precinct of the Mongol imperial capital, while the surviving remains of the reservoir and canal system provide further evidence for the existence of a carefully organized hydraulic and ceremonial landscape within the palace complex.

Rather than understanding the reservoir solely as a utilitarian water installation or a later monastic feature, this article has argued that the lake may plausibly be interpreted within the broader context of Inner Asian traditions of ritual water architecture. Comparative evidence from Xiongnu palace complexes, Uighur ritual practices, medieval travel accounts, and Mongol historical sources suggests that water frequently functioned as a cosmological and political medium associated with sacred kingship, oath-taking, enthronement, purification, and the legitimation of imperial authority. Within this wider framework, the artificial lake at Kharkhorum appears to represent part of a long-standing ceremonial tradition linking rulership to sacred landscapes and celestial symbolism.

The study also contributes to the broader reassessment of Mongol urbanism and imperial ideology. The evidence from Kharkhorum increasingly indicates that Mongol imperial centers were not merely pragmatic administrative settlements, but highly intentional ceremonial environments shaped by symbolic, cosmological, and ritual principles. The integration of canals, reservoirs, monumental enclosures, and spatial orientation within the palace precinct demonstrates that architecture and landscape played an active role in articulating imperial power and sacred authority.

At the same time, many aspects of the reservoir's precise chronology and ritual function remain open to further investigation. Interpretations concerning celestial reflection, oath rituals, and enthronement symbolism should therefore be regarded as historically grounded yet provisional reconstructions rather than definitive conclusions. Future archaeological excavations, environmental studies, and geophysical surveys conducted around the lake basin and surrounding palace structures may provide additional evidence clarifying the development and ceremonial use of the site.

Nevertheless, the available archaeological, textual, and comparative evidence strongly suggests that the artificial lake within Erdene Zuu formed an integral part of the ritual landscape of the Mongol imperial palace at Kharkhorum. Reconsidering the reservoir in this way not only refines our understanding of the spatial organization of the Mongol capital, but also illuminates broader questions concerning sacred kingship, ceremonial topography, and the relationship between water, cosmology, and imperial authority in Inner Asian history.

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