

A new Dilmun-related seal from Umm al-Quwain (U.A.E.)



Abstract: Excavation of a late 2nd–1st millennium BC necropolis of semi-subterranean collective graves at Abra q 2 in Umm al-Quwain, U.A.E., unearthed a remarkable collection of artifacts, including a distinctive domed stamp seal. This discovery sheds light on cultural exchange and the adoption of artistic motifs in Southeast Arabia. The seal's morphology and iconography display elements associated with the Dilmun culture, centered in Bahrain during the late 3rd and first half of the 2nd millennium BC. However, the date indicated by its archaeological context and certain deviations from established canons of Dilmun glyptic suggest a more nuanced interpretation, with the possibility of a local reinterpretation. This new finding contributes to our understanding of Dilmunite influences in the region and adds to a growing corpus of Dilmun-related seals.

Keywords: Southeast Arabia, Iron Age, Arabian Gulf archaeology, seals and amulets, cultural exchange, Dilmun glyptic

INTRODUCTION

In 2018, the Tourism and Archaeology Department of Umm al-Quwain (U.A.E.) initiated an archaeological investigation in a suburb named Abra q 2, not far from the well-known multi-period site of Tell Abra q [Figs 1, 2], under the supervision of Ms Rania Hous-

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sein Kannouma and Mr Meqdad Aboegreed. The area comprises a flat sand field where the only elevations originate from recent earthworks [see *Fig. 2* top inset]. In 2019, after the presence of two graves had been verified and one had been partially excavated, the Italian Archaeological Mission in Umm al-Quwain (IAMUQ), within the scope of the Abraq Research Project, started its collaboration in the site's recording (2020) and, subsequently, excavation during two field seasons in 2021 and 2022. So far, the work has revealed three subterranean and semi-subterranean collective graves, at least one of which comprised several chambers with evidence of multiple construction phases [see *Fig. 2* bottom]. These represent only a small portion of a larger and apparently dense necropolis, as indicated by the spread of archaeological material on the surface (potsherd, stone vessel

fragments, human bones) and by the results of a GPR survey conducted in February 2023.

All the graves investigated so far had been thoroughly plundered and nothing remains of the original stratigraphy. Excavation by artificial spits yielded no appreciable results. Nevertheless, the grave goods assemblage includes so far more than 1200 small finds (more than 450 of which are beads) and nearly as many diagnostic potsherds (excluding those recovered during the 2022 season). This offers clues for dating the burials and the domed stamp seal presented here, recorded with the inventory number TAD.0105.

Abundant evidence suggests construction of the graves took place during the Late Bronze Age (1600–1300 BC) and is supported by the absence of artifacts from the Wadi Suq period (2000–1600 BC). The largely dominant amount of Iron Age materials further suggests a date in the final part of the LBA. This chronology aligns with the discovery, at the nearby site of Tell Abraq—surely associated with Abraq 2—of two seal-impressed jars with iconographic parallels pointing to their dating in the third quarter of the 2nd millennium (Majchrzak and Degli Esposti 2022). Such a timeframe is rather common for collective chamber graves in the region, a recently excavated example of which is the long-chambered tomb LCG-1 at Dibba (on the opposite coast of the Emirates), where several imported items find parallels dated between the 14th and 12th centuries BC (Frenez et al. 2021).



Fig. 1. Location of Abraq 2 and other main sites mentioned in the text (Processing M. Degli Esposti)



Fig. 2. Graves excavated within the Abraq 2 area (top), and a closer, orthorectified view (bottom) (Processing M. Degli Esposti and F. Borgi/IAMUQ)

THE SEAL (TAD.0105)

Seal TAD.0105 was recovered in a disturbed surface context at Abraq 2 and was possibly originally deposited in Grave 1 [see *Fig. 2* bottom]. The associated artifacts suggest a Late Bronze to Early Iron Age chronology. However, the seal's morphological and iconographic characteristics align more closely with the Dilmun glyptic tradition prevalent along the northeastern Arabian coast in approximately 2200–1800 BC (Crawford 2001: 20).

TAD.0105 is a semi-spherical soft stone seal [*Fig. 3*]. It comprises a disc-shaped base topped by a slightly narrower dome-shaped boss. The maximum diameter is 17.4 mm (the disc), and the preserved height is 9.4 mm. The disc itself measures 3.3 mm to 4.0 mm in height. A transverse perforation with terminal diameters of 2.4/2.6 mm runs through the boss.

A white residue within the engravings hints at the possible use of stone heat treatment, a technique originating from the Harappan tradition and widely practiced by Dilmun seal makers to harden and whiten the surface (David-Cuny and Neyme 2016: 29–32; Olijdam and David-Cuny 2018).

Although abrasion has obscured some details of the decoration, the main elements are still discernible. The reverse of the boss features an incised decoration: three parallel lines defining two halves and two dotted circles on both sides of the lines, occupying the center of the four quadrants.

The sealing surface features a decorative design with a central line that divides the surface into two uneven halves [*Fig. 4*]. One end of this line is blunt, while the opposite is pointed, the latter possibly resulting from post-depositional damage to the seal's decoration. Two opposing figures, both resembling animalistic motifs, flank this central element on each side.

On one side, a creature with an animal head adorned with a large drilled eye and a ruffed neck is depicted. An ear and two parallel horns curve towards the central axis above the eye, while the head faces outward. Due to the seal's edge, the creature's body is largely obscured, with no visible limbs; however, the impact of possible abrasion should be considered.

The other half of the seal's obverse is slightly larger. A distinctive angular line branches off the central line about one-third of the way down and curves towards the upper body of the animal depicted on this side. Notably, this animal's orientation is inverted compared to the creature on the other side.

Here, a weathered and damaged representation of an animal with a pointed abdomen and ruffed neck is visible. The animal's head and forelimbs are eroded, but remnants indicate an outward orientation. The visible tips of its horns (or possibly a horn and ear) curve towards the seal's edge, contrasting with the opposing figure and contributing to the composition's dynamic rotation.

DISCUSSION: MORPHOLOGY

Paul Kjaerum's typology (1980; 1983), based on his analysis of finds from Failaka, established a fundamental framework for classifying Dilmun seals. Beyond the main Dilmun type (comprising Styles Ia-b, II, III), Kjaerum identified the earlier Arabian-Gulf and transitional proto-Dilmun styles. However, subsequent applications of this system to Bahraini specimens revealed inconsistencies (Kjaerum 1994: 320, 327; Crawford 2001: 18–20; Laursen 2018: 205–215). The chronological significance of these styles has also been called into question due to their frequent co-occurrence within the same stratigraphic units (Kjaerum 1980: 46; 1994: 349–350). Indeed, these stylistic variations are more likely indicative of regional distinctions or workshop-specific practices (Kjaerum 1994: 341; Crawford 2001: 18–20).

The reverse decoration comprising three parallel lines and four dot-in-circle motifs is a hallmark of Dilmun-type seals, particularly those belonging to Dilmun Styles I and II. While this motif can also be found on earlier proto-Dilmun examples, it is important to note that it becomes less

common in later Dilmun Style III seals (Crawford 2001: 16–17; Laursen 2018: 205–215). Proto-Dilmun versions often exhibit deeper and wider engravings compared to Dilmun-type seals, which typically also display larger dimensions, with diameters ranging from 2 to 3 cm (to a maximum of 6.5 cm — see Kjaerum 1983: No. 250) and a characteristically wider and lower dome that results in a height approximately half the diameter (Kjaerum 1994: 319–321).

Specimen TAD.0105 exhibits morphological characteristics that align with both proto-Dilmun and Dilmun Style II seals. Its narrow collar suggests affinities with Dilmun Style II, while its overall dimensions and preserved height (9.4 mm, dome height of 3.3–4.0 mm, and disk diameter of 17.4 mm) are more typical of proto-Dilmun examples. The morphological classification of this specimen remains somewhat ambiguous, highlighting the complexities of the Dilmun seal typology.

Moreover, the engraving technique employed on TAD.0105 rather fits the Dilmun Style I, characterized by the use of a drill tool for rendering animal eyes.¹



Fig. 3. Dilmun-related seal TAD.0105 with a modern impression (Processing M. Degli Esposti/IAMUQ)

¹ Distinguishing between Ia and Ib is challenging as it primarily relies on specific anthropomorphic depictions (Kjaerum 1980: 46; Crawford 2001: 18).

Although a drill tool is commonly used on Style II seals as well, this style, particularly prevalent on Failaka Island, is usually characterized by rosettes and a composition centered around a circular element (Laursen 2018: 213–214). In contrast, the proto-Dilmun style typically features incised (rather than drilled) animal heads/eyes similar to the Arabian-Gulf style (Crawford 2001: 16–17).

Consequently, artifact TAD.0105 can be placed within the proto-Dilmun to Dilmun-type Style II spectrum. However, as noted above, this classification offers limited value for dating or determining the artifact's original provenance beyond the hypothetical exclusion of Failaka's workshops, the basis of Kjaerum's typology.

An interesting feature of TAD.0105 is the horizontal damage at the upper portion of its dome, potentially indicative of an elongated dome-to-disk ratio. Typ-

ically, damage to the domes of Dilmun seals is associated with their perforation (cf. David-Cuny and Azpeitia 2012: 40, 45, 58, 69, 73, 82, 100, 104; David-Cuny and Neyme 2016: 90, 102, 104, 105, 108, 119, 124, 126, 141, 146, 150, 160; Højlund and Abu-Laban 2016: Figs 681, 717, 727; Højlund et al. 2022: Figs 340, 345). Instances of horizontal damage unrelated to the perforation are relatively rare (e.g. David-Cuny and Azpeitia 2012: 93; David-Cuny and Neyme 2016: 103); more frequently, the top area simply exhibits signs of wear (cf. David-Cuny and Azpeitia 2012: 38, 39, 66, 75, 79, 87, 97; David-Cuny and Neyme 2016: 86, 106, 117). The possibility that the seal from Abraq 2 was intentionally flattened for ornamental, perhaps amuletic, purposes cannot be excluded. Alternatively, the seal's unusual dimensions (relatively high dome) may have favored the damage of this part.

DISCUSSION: ICONOGRAPHY



Fig. 4. Drawing of the scene represented on seal TAD.0105 (Drawing D. Majchrzak)

The obverse of seal TAD.0105 presents three discernible elements: a central line flanked by two animal-like figures. The first figure, facing inward, is largely obscured by damage and consequently difficult to identify definitively. However, the visible features—a centrally drilled eye, elongated horns, and a ruffed neck—are all characteristic markers of Dilmunite iconography (Crawford 2001: 16–20). The ear adds another detail, but the remainder of the animal's body is concealed.

This enigmatic figure invites multiple interpretations. One possibility is that the seal once depicted a horned animal from the Bovidae family, possi-

bly belonging to the Caprinae or Antilopinae subfamilies, with its body and limbs squeezed towards the seal's edge, now lost to damage. Such representations of antelopes/goats were very common in Dilmunite glyptics [Fig. 5:a]. Their horns, usually depicted parallel, either C-shaped or straight, smooth or ribbed,² often resemble those on TAD.0105 (cf. Crawford 2001: 52–54, Nos 228:02, 1024:06, 1580:01, 1612:01, 1841:01, 1853:18).

Another intriguing analogy from Dilmunite glyptic points to the fantastical depiction of the animal of the same species, only indicated by a ruffed neck surmounted by a single or double head [Fig. 5:b], sometimes joined in larger groups (Crawford 2001: 53, 57, 66, 70, 73, Nos 1024:06, 2535:01, 5510:15, 7008:5, G17:18:02; David-Cuny and Neyme 2016: 67, 72, 80). The figure on TAD.0105 could potentially represent such a single or even double head, if its horns overlapped the central line. Damage, however, obscures the area where it would be located and even accounting for potential abrasion, the remaining space seems insufficient to accommodate the second head.

Finally, a third interpretation posits a horned-serpent motif, also a recurring symbol in Dilmunite glyptic [Fig. 5:c]. Steffen T. Laursen (2021: 301) proposed it might represent “a possible Dilmunite goddess of the primordial sea, somehow comparable to the Babylonian Tiamat”. Another possibility is it simply represents venomous horned vipers (*Cerastes gasperettii*), which

are still common nowadays in the Arabian Peninsula, including areas once occupied by the Dilmun culture (Mochales-Riaño et al. 2024). These two interpretations can co-exist, as snakes, particularly those deemed dangerous, undoubtedly held significant magical potential.³

Typical Dilmunite snake-like creatures, however, most often exhibit wavy bodies (Laursen 2021: 306, 308), contrasting with the elongated, bent body of the creature on TAD.0105, which most likely points to the antelope/goat or its partial, single-headed, representation.

The opposite half of the seal likely depicts another bovid, as evidenced by its characteristic pointed abdomen. A ruffed neck is visible, although the absence of the head and most of the horns precludes precise species identification. The parallel horns present on the other creature could potentially indicate an antelope or goat. Conversely, the U-shaped horns might suggest cattle, as exemplified by isolated bullhead motifs (protomes; Crawford 2001: 72, No. F18:33:16; David-Cuny and Azpeitia 2012: 59, 86; David-Cuny and Neyme 2016: 67, 99, 120, 137).

A distinctive feature of this part of the scene is an angular line extending from the central axis at approximately one-third of its length, resembling a hoofed paw. While hoofed limbs are common in Dilmun iconography, they rarely appear as isolated motifs or associated with lines. Beyond their role as components of larger animal figures, these limbs could poten-

2 These variations could represent a specific species or simply reflect the available space on the seal.

3 Particularly relevant to this discussion is Laursen's observation that in the Mesopotamian myth, the goddess Tiamat gave birth to eleven offspring, including three venomous horned serpents (ETANA Enuma Elish I. 133–143).

tially represent the base of “tables” that may have functioned as sacrificial altars or incense burners (David-Cuny and Azpeitia 2012: 50; David-Cuny and Neyme 2016: 79, 106; Peyronel 2008: 246) but this is clearly not the case for TAD.0105.

The meaning of the line depicted at the center of the seal also remains somewhat elusive. It may have served a purely compositional purpose, dividing the circular seal space and facilitating the arrangement of the other elements. This central line, or post, might also hold symbolic significance. Alternatively, it might have been part of a larger, now incomplete symbol.

The overall composition of the scene, with two antithetically arranged animals on the opposite sides of a central

axis, is a recurring theme in Dilmun glyptic. Very often, a plant (typically a palm or palm leaf) stands between two horned quadrupeds, who graze from it or perhaps adore it. Such a “tree of life” motif is attested especially on early Dilmun seals from Saar in Bahrain (Crawford 2001: 53, 55, 56, 63, 71 and Nos 1040:01, 2051:06, 2088:01, 5040:01, F18:33:01), but also on specimens from Failaka (David-Cuny and Neyme 2016: 151, 183; Højlund and Abu-Laban 2016: 142 and Fig. 678). However, in these instances, the figures are positioned on either side of the central element facing each other, as opposed to the upside-down arrangement observed on TAD.0105.⁴

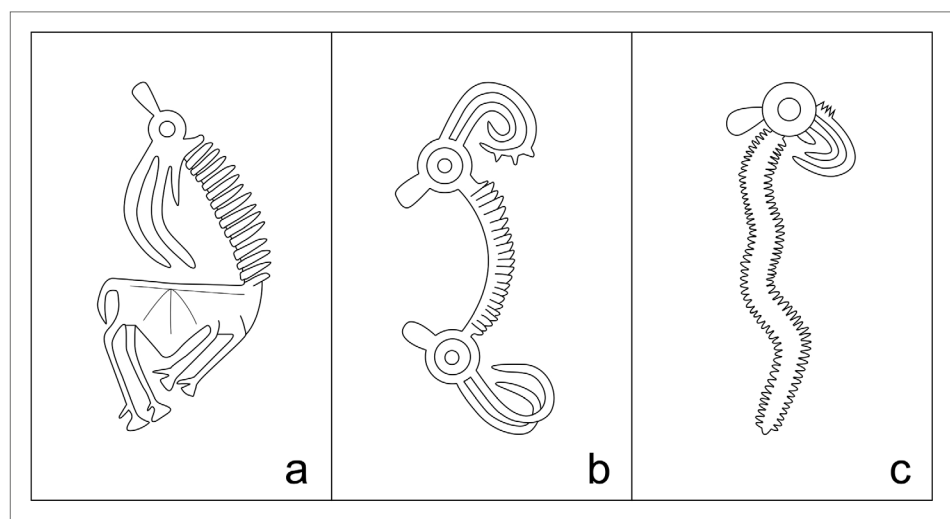


Fig. 5. Examples of typical animal representations in Dilmun glyptics, as discussed in the text: a – antelope/goat (After Crawford 2001: 62, No. 4350:01); b – double-headed antelope (After David Cuny and Neyme 2016: 67); c – horned snake (After David-Cuny and Neyme 2016: 159; drawings a-c D. Majchrzak)

4 A similar concern arises with another common central motif in Dilmun glyptic, the standard. This typically consists of a pole crowned with a combined or individual lunar-solar symbol, or a motif resembling horns (David-Cuny and Neyme 2016: 66, 67, 94, 96, 97, 99, 103, 110, 114, 120, 123, 129, 134, 157, 166, 167); however, in such cases the standard necessitates a shorter pole to accommodate its crowning element.

A seal from Saar where two horned animals are represented on both sides of a central lozenge motif (Crawford 2001: 64, No. 5059:04) offers a different perspective. Similar to TAD.0105, the animal bodies are depicted turned in opposite directions [Fig. 6:a]. This brings back into question

the hypothesis of the central element on the Abraq 2 seal being a post and raises the possibility that the scene depicts the two animals engaged in a “ridda” (ritualized dance) around a central post (perhaps a totem). The Saar seal, with its possible oblong fence (?) motif, might depict a similar scene.

A LOCAL PERSPECTIVE

Given the chronological and/or stylistic similarities, seals unearthed in the region hold particular relevance for this discussion. Especially noteworthy are artifacts from the nearby Tell Abraq site, just 700 m away from Abraq 2. Interestingly, an ivory seal discovered in the Umm an-Nar tomb excavated by Potts (2000: 122) exhibits a similar layout of decoration. This seal features two different horned quadrupeds facing a centrally placed tree, in a local rendering of the widespread “tree of life” motif [Fig. 6:b]. Below them, a scorpion and snake are also depicted. This seal exemplifies the Arabian-Gulf style: a perforated dome without decoration surmounts the round disk. Notably, the animals on this seal are fully engraved,

including their heads, a technique consistent with the Arabian-Gulf style but contrasting with the use of a drill tool employed in TAD.0105. Furthermore, unlike TAD.0105, the animals on this seal face each other, rather than being depicted upside down to create the impression of dynamic rotation. Of possible relevance to the discussion of TAD.0105 is anyhow the attestation of the “tree of life” motif, showing its diffusion in the area and leaving the possibility open that the central element on the Abraq 2 seal was a tree, with the upper part lost to damage.

The mention of another stamp seal from Tell Abraq might be in order here. It is an Iron Age conoid stamp seal (TA 299), made of dark soft stone, discovered

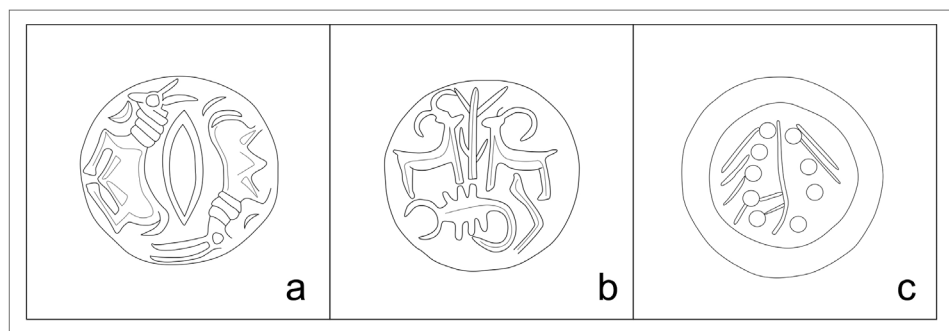


Fig. 6. Selected seals discussed in the text: a – “ridda” seal from Saar (After Crawford 2001: 64, No. 5059:04); b – “tree of life” seal from Tell Abraq (After Potts 2000: 122); c – Iron Age “drilled style” seal from Tell Abraq (After Potts 2000: 67; drawings a-c D. Majchrzak)

in 1990 (Potts 1991: 95; 2000: 67). The obverse is adorned with a central line, with dots on both sides arranged in two antithetical arcs [Fig. 6:c]. Potts (1991: 95) interpreted this schematic depiction as a symbolic palm branch with dates. The rudimentary design of this seal allows for some more tentative interpretation. The dots could be elements of two opposite figures, echoing the “drilled style” characteristic of much earlier seals, also witnessed on a stray cylinder seal found in a dune field in western Abu Dhabi (Pittman and Potts 2009) and in a chronologically more consistent one from Salūt-ST1 (Degli Esposti 2014). Regardless of the specific interpretation, both mentioned examples, despite their chronological differences, share a notable feature: a roughly symmetrical layout, suggesting familiarity within the local community.

Recent studies of similar findings from the Arabian Gulf have highlighted the specific class of the so-called Dil-

mun-inspired seals, meant as seals deriving from the local re-elaboration of Dilmunite characters (Frenez et al. 2021: 110–111; see also the recently published seal from the Qidfa' 1 grave in Al Tikriti 2022: 68 and Figs 209–210). These seals take the form of a hemispherical stamp without a clearly defined dome. The top of the seal is a direct extension of the disc. The reverse decoration is reminiscent of Dilmunite glyptics, often using a triple line and four dot-in-circle motifs, as in the case of TAD.0105.

However, the term “Dilmun-inspired” might be understood as intrinsically implying a local production. Although this could be the case for seal TAD.105, the resemblances to the genuine Dilmun glyptic are numerous and leave the question open. As such, we deem it more appropriate to refer to it as a “Dilmun-related” seal, already introduced by Laursen and al-Otaibi (2023: 68–71), understanding this as a more neutral term.

SEAL DATE AND FUNCTION

Beyond the iconographic analysis, and actually based on some of the aspects pointed out in it, the study of the seal TAD.0105 touches upon other issues.

The first concerns its date of production as opposed to that of its deposition inside one of the graves at Abraq 2.

The scene portrayed on TAD.0105 possibly echoes the mythology, tales, and perhaps even the politics⁵ of the Dilmun region. However, in the late 2nd millennium, Dilmun had long lost its role in

the Gulf. After the Babylonians took control of the northern Mesopotamian territories and the northern trade routes leading to copper resources around 1700 BC, Dilmun lost its major trading partner and slowly declined. Around 1600 BC, the Babylonian Kassite Dynasty took over power in Dilmun, and the Dilmun people began to migrate, as evidenced by the gradual abandonment of their cities (Crawford, Killick, and Moon 2017: 5; Højlund et al. 2022: 28).

5 The specific shape of the seal, resembling a Mesopotamian (and maybe also Dilmunite) royal cap, is assumed to have symbolically legitimized the power of local rulers (Højlund 2000).

The construction of the Abraq 2 graves, judging from the collected artifacts, must be placed after the fall of Dilmun under Kassite control, possibly even two or three centuries later. This indicates that the TAD.0105 seal, if indeed an original Dilmun production of the first half of the 2nd millennium, must have been around for a long time before ending up in the burial, probably as an heirloom passed down through generations. This brings up a second issue: what made this seal so worthy to be kept for so long and chosen to accompany the final journey of one of the individuals buried at Abraq 2? Surely not the possible administrative function, as evidence for such a use of seals is virtually absent in Southeastern Arabia (Majchrzak and Degli Esposti 2022: 165).

Two interconnected reasons explain the absence of administrative seals in this region. First, unlike neighboring regions, southeastern Arabia lacked a writing system. This is, however, interesting to note, because the upper Arabian Gulf as well as central Asia (BMAC), which also lacked writing, conversely developed a remarkable seal-making tradition (e.g. Laursen 2018). Second, the particular social system of southeastern Arabia differed from its neighbors'. Unlike the hierarchical structures of nearby regions, southeastern Arabia remained rooted in local tribal organization (e.g. Cleuziou 2003). This social structure likely dis-

couraged the formation of a centralized administration, which is typically connected with the introduction and spread of administrative seal use. In light of these points, a perception of the seal as an amulet or even a simple ornament seems more plausible.

While there is a growing consensus that southeastern Arabian communities did not perceive seals as administrative tools but rather considered them as apotropaic amulets or exotica (Lombard 1998: 159; Potts 2010: 37; Degli Esposti 2014: 140; Frenez et al. 2021: 121; Majchrzak 2022: 50; Overlaet, Jasim, and Yousif 2023: 104, 109), the “degree of cross-cultural understanding” reflected in the adoption of iconographic elements (Frenez et al. 2021: 121) is a more debatable topic. In some cases, the selection of specific elements might be linked to the attribution of protective or magical properties to individual symbols on the basis of beliefs specific to the local communities—often beyond our grasp—rather than a deep understanding of their original meaning within the source culture. This intriguing possibility, which may explain why the seal from Abraq 2 was apparently kept for such a long time, would require further investigation, but it falls outside the scope of this brief note. The lack of written records from this period also significantly hinders a more precise understanding of the exact role these elements played.

FINAL REMARKS

The excavated graves of Abraq 2 yielded a conspicuous assemblage of grave goods witnessing the long use of the structures, roughly from the second half of the 2nd

millennium to at least the mid-1st millennium BC. Among them, the seal presented here adds to the well-attested corpus of seals connected in various ways

with the Dilmunite tradition. While the origin of this particular seal remains uncertain, it bears witness to the circulation of objects, ideas, and likely people coming from that central Gulf polity.

It is sometimes difficult to reach a safe conclusion about the place of production of these seals. One recently published blatant example is a faience cylinder seal from the Qidfa' 1 grave in the Emirate of Fujairah. While the specialist's assessment by Dominique Collon determined it to be a local pro-

duction based on stylistic elements (Collon in Al Tikriti 2022: 69), the excavator of the grave, based on the material not known to be produced in the region, opts for an import (Al Tikriti 2022: 68). A similar case presents itself regarding the seal discussed here. The suggestion of local manufacture based on minor inconsistencies in some elements and composition of the iconography is counterbalanced, and possibly outweighed, by the use of typical Dimunite techniques and general iconographic motifs.

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