

CRAFTING PURITY IN ASSYRO-BABYLONIAN PROCEDURES. TIME, SPACE, AND THE MATERIAL WORLD*

LA ELABORACIÓN DE LA PUREZA EN LOS PROCEDIMIENTOS
ASIRO-BABILÓNICOS. EL TIEMPO, EL ESPACIO Y EL MUNDO MATERIAL

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ABSTRACT

Assyro-Babylonian procedural texts for making cult objects dated to the 1st millennium BCE provide an untapped resource for examining scribal conceptions of craft and purity in the ancient world. Ritual procedures for “opening of the mouth” of a cult statue (*mīs pī*), and for manufacturing a ritual drum called the *lilissu*, constitute the principal focus of this two-part study. This work uses three *themata* – time, space, and

RESUMEN

Los textos procesales asirio-babilónicos para la fabricación de objetos de culto que datan del primer milenio a.C. proporcionan un recurso no explotado para examinar las concepciones de los escribas sobre la artesanía y la pureza en el mundo antiguo. Los procedimientos rituales para “abrir la boca” de una estatua de culto (*mīs pī*) y para fabricar un tambor ritual llamado *lilissu* constituyen el enfoque principal de este estudio de

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the material world – to provide the scaffolding for a comparative analysis that spans various centuries and localities, highlighting the ways in which “purity” was crafted in cuneiform scholarly cultures.

dos partes. Este trabajo utiliza tres *themata* (tiempo, espacio y mundo material) para proporcionar el andamiaje para un análisis comparativo que abarca varios siglos y localidades, destacando las formas en que la “pureza” se forjó en las culturas académicas cuneiformes.

KEYWORDS

Assyriology; Craft Production; Cult Objects; Cuneiform Studies; History of Knowledge; History of Science; History of Technology; History of the Ancient Near East; Procedures; Purity; Recipes; Religion.

PALABRAS CLAVE

Asiriología; Estudios Cuneiformes; Historia de la Ciencia; Historia de la Tecnología; Historia del Cercano Oriente antiguo; Historia del Conocimiento; Objetos de Culto; Procedimientos; Producción Artesanal; Pureza; Recetas; Religión.

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THIS PAPER EXAMINES HOW CONCEPTIONS OF TEMPORAL, spatial, and material purity manifest in Assyro-Babylonian craft procedures for making cult objects. Specifically, we explore the thematic and philological resemblances between two cuneiform procedural text traditions well-attested in both Assyrian and Babylonian scholarly contexts. The first of the texts under consideration are the instructions for making a cult statue known as the *mīs pî* or “washing of the mouth” ritual, preserved in exemplars dating from the mid to late 1st millennium BCE, *i.e.* the Neo-Assyrian to Late Babylonian periods; these texts will be compared to similar instructions for making “pure” objects, notably, Neo-Assyrian glassmaking recipes. The second set of texts are procedures for making a ritual drum called the *lilissu*, attested in the Late Babylonian context of the 3rd cent. BCE. In this work we argue that these two text traditions share key points of intersection that facilitate a cross comparative inquiry on the role of craft and conceptions of purity in cuneiform scholarly cultures. We maintain that the comparative study of the *mīs pî* and *lilissu* drum ritual – a connection which had already been noted by Christopher Walker and Michael Dick in their edition of the mouth washing ritual¹ – provides an opportune moment for reconsidering broader intertextual questions concerning the influence of written ritual craft instructions, and their prescriptive elements, on material and cultic practice, and vice a versa.² In addition, §§ 1-1.3 explore how these three *themata* of time, space, and the material purity manifest in first millennium craft procedures for making glass, extending the

1. Walker & Dick, 2001, pp. 10-11 note the philological points of contact between the *mīs pî* and *lilissu* drum rituals; a comparative focus on these two cultic procedures, however, has not been subject to in-depth analysis.

2. For a recent historical summary of approaches to Akkadian literature, see Pongratz-Leisten, 2020.

proposed hermeneutical framework into the world of chemical procedures that have traditionally been examined for their technological rather than scholarly content.

While scholars have examined conceptions of purity within sacred contexts, purity in craft and procedural contexts, understood through the lens of the scribe, has received far less attention.³ In the ancient Near East, “purity” was a broad, multivalent concept, representing a subject more suitable for a monograph than single co-authored paper. Although conceptions of purity and impurity in religious contexts will invariably enter into the discussions below, the goal of this work is to attempt a thick description of purity as a scholarly *thema* within procedural scholarship, focusing on texts which deal particularly with the making of purified objects (cult images, glass, ritual drums).⁴ By employing a thematic analysis, we seek to highlight “imageries and preferences for or commitments to certain kinds of concepts, certain kinds of methods, certain kinds of evidence, and certain forms of solutions to deep questions and engaging puzzles,”⁵ here, the intellectual and cultural history of how “purity” was understood as a key component of Assyro-Babylonian craft procedures. Moreover, undertaking a thematic approach to cultic procedural texts aids in circumventing what Daniel Schwemer has noted are the intuited and often limited boundaries of our modern categories of magic, religion, and science that have few resonances with the categories of knowledge extant in the cuneiform cultures under discussion, particularly in cultic contexts.⁶

This work is split into two main sections. Sections 1-1.3 (Escobar) dissect how time, space, and materials are made pure within the well-preserved Neo-Assyrian recension of the *mīs pī* ritual. In this first part, an argument is made for interpreting “mouth washing” as an “iterative loop” wherein purity is achieved principally through procedural repetition. Intertextual parallels are drawn with contemporaneous Assyrian recipes for making colored glass, which demonstrate similar procedural rubrics, including parallel linguistic structures and scribal appeals to divine purifying agents called *Kusu* and *Kubu* respectively. These purifying deities, who have been generally understudied in comparative contexts, constitute an important contribution to the

3. There are numerous discussions of purity in religious contexts, particularly as they relate conceptions of sin and transgression. E. Jan Wilson (1994) has discussed concepts of holiness and purity in Mesopotamia.

4. Due to our focus on objects, we will not discuss the important and relevant building rituals from the 1st millennium BCE, examined by Claus Ambos (Ambos, 2010).

5. Merton, 1975, p. 335. Francesca Rochberg has already noted the potential of exploring *themata* (à la Holton) in cuneiform scholarship (Rochberg, 2016, p. 277).

6. Schwemer, 2011, pp. 418-420. See discussion below on the *mīs pī* ritual.

question of divine agency in craft production, and provide a close point of contact between the *mīs pî* and glassmaking procedures.

Sections 2-2.3 (Borrelli) focus on the Late Babylonian ritual for covering the *lilissu* drum, specifically, text TCL 6, 44, which provides a rich case study of the interface between the lore of the lamentation priest (*kalûtu*) and specialist knowledge of craft production (*ummânutu*), highlighting how technical knowledge was embedded and transmitted in a ritual context. Equally, we find in TCL 6, 44 the thematic elements of ritual timing, purifying of the cultic craft space known as the *bît mummi* (a craft space is shared by the *mīs pî* ritual), and finally the process of selecting pure materials for crafting the *lilissu* drum.

1. THE *MĪS PĪ* RITUAL AS AN ITERATIVE LOOP

Since the first editions of cuneiform tablets and fragments preserving the ritual known as *mīs pî*, “washing of the mouth”, or “opening of the mouth” (*pīt pî*) were published at the turn of the 20th century, they have offered a retort to the fundamental Biblical prohibition against creating a divine image or simulacrum of a god.⁷ The “Washing/Opening of the Mouth” ritual may be summarized pithily as an answer to the question: How can a god be made? The answer, as we will find, is a complex and *iterative* process of creation, wherein actors and actants, both human and non-human, animate and inanimate, bring to bear – and quite literally “birth” (in Akkadian, *alādu*) – a divine image. The production of the cult image (or *šalmu*) is carefully guided by an incantation priest, who is tasked with reciting and supervising the proper rites of purification.⁸ By the mid 7th century BCE, knowledge of the *mīs pî* ritual could be counted among the most important representatives of the field of specialized knowledge maintained by the incantation priests and exorcists known by the professional title *āšīpu*.⁹

7. Heinrich Zimmern in 1901, and Sydney Smith in 1925, were among the first to advance our knowledge of these texts, see Walker & Dick, 2001, pp. 3-30; Hurowitz, 2003, pp. 147-148.

8. The human exorcist/incantation priest, or *āšīpu*, is mirrored in the divine realm by *Kusu* (wr. ⁴KÜ. SÛ), identified as the chief exorcist of Enlil, and discussed further in the section(s) that follow. A classic discussion of the meaning of *šalmu* in ancient Mesopotamia may be found in Winter, 1997; Bahrani, 2003, pp. 123-128, and more recently Berlejung, 2021.

9. A well-known text known as the Exorcist’s Manual catalogues the *mīs pî* ritual as among the primary texts of the exorcist’s lore, alongside incantations to the sun god, and *šūila* prayers, for which, see Schwemer, 2011, p. 421.

Manuscripts of the *mīs pī* ritual can be separated into two complementary text traditions. First, are those tablets that provide ritual procedures for crafting a cult statue, which come principally from the region of Assyria with the exception of a single Babylonian tablet; second, are the eight known incantation tablets, which provide further insight into the nature of the cult procedure. A two-day process is described in the ritual procedure, during which the *āšipu* leads the statue from the cultic workshop (*bīt mummi*) to a reed hut erected by the river. There, the image of the god is cleansed and imbued with the presence of the god before it is transported once again to its permanent resting place in the temple. Collectively, the Assyrian procedures and the accompanying incantation tablets provide a complex picture of how, during the Neo-Assyrian period, the cult image could be “born in heaven and made on earth.”¹⁰ The birth of the divine image is not a single event, but rather an iterative act, such that, throughout the course of this ritual, purity and divine life is attained by “washing the mouth” over a dozen times over the course of two days.¹¹

As Irene Winter has discussed, the transformation of an inanimate material object to an animate one with its own agency is predicated on the cult statue’s ability to speak, “[i]n Mesopotamia, the principal sensory organ addressed in the enlivening process is related to speech, while in Hindu and Buddhist practice it is related to vision.”¹² And indeed, nearly every variation of the “washing/opening of the mouth” ritual in Assyro-Babylonian sources, whether in colophons or catalogs, begins with the sign KA, the Sumerian term for “mouth.”¹³ However, it should be noted that failure to perform the ritual properly results in the statue’s inability to tap into all of its senses, not just the ability to speak. As described in the third incantation tablet of *mīs pī*, “this statue cannot smell incense without the ‘Opening of the Mouth’ ceremony, it cannot eat food nor drink water.”¹⁴

The list of purification rites performed within the 48-hour period of the *mīs pī* are many, but nowhere is the craft philosophy of the *mīs pī* ritual made clearer than in act of craftsmen discarding their tools, and thereby, disavowing the cult image’s terrestrial origins.¹⁵ This act occurs at two points of the ritual. At the end of the

10. Dick, 1999, p. xi. A summary of the ritual may also be found in Schwemer, 2011, pp. 426-427.

11. Hurowitz notes that the statue’s mouth is washed at least 14 times in the known exemplars of both the procedures and incantation tablets (Hurowitz, 2003, p. 150).

12. Winter, 2000, p. 310.

13. Walker & Dick, 2001, catalog discussion.

14. Walker & Dick, 2001, p. 151.

15. Both the *lillisu* (§ 2) and the *mīs pī* rituals aim at the denial of the human intervention in the manufacturing process and stress the divine origin of the image.

first day, when the statue is set to rest within a reed hut under the night sky, we are instructed as follows:

“[You take] the hand of [the god]; and in the orchard in the midst of the reed-huts and reed-standards you seat that god on a reed-mat on a linen cloth. You set his eyes towards sunrise; and alongside that statue in the midst of the reed-huts and reed-standards you lay down the equipment for the god, all of it, and the equipment of the craftsmen; and you withdraw”.¹⁶

During the second day of the ritual, a similar act is detailed, wherein the craftsmen who manufactured the statue are made to stand before the image and swear to the gods, including Ea, the god of craft, that they had no hand in making the statue; at this point, the text – which unfortunately suffers from multiple breaks – switches from the second to the first person:

“(I swear) I did not make (the statue) [...] Ninagal, who is Ea [...]”
 “I did not make (the statue); (I swear) I did not [make (it)]”.

As an agent, the sculptor of the divine image may be characterized as an “invisible technician”, *i.e.* the role of the craftsman is not that of a sculptor in the modern sense, but rather, a lab technician, a facilitator and agent whose *raison d'être* is to aid the *āšipu* in achieving his goal, and whose role is mirrored in the divine world by minor craft deities like *Kusu* and *Kusibanda* (discussed in § 1.2).¹⁷ The *mīs pî* ritual is an unambiguous statement contradicting the charge of idolatry, as the greatest sculptor could not have made a cult statue without the priest-scribe capable of reciting the proper rites. Equally, knowing which Sumerian incantations to recite was not enough to imbue a statue with divine life. Crafting a god required the skills of a trained technician (*ummānu*), capable of sourcing, selecting, and refining the finest and purest materials. These two forms of expertise were co-dependent and co-productive, as explored throughout both parts of this paper.

I have thus far characterized the creation of the cult statue as an iterative process to distinguish the ritual from a linear rite of passage beginning with an inanimate sculpture and terminating with a living god, an idea which has rightly been criti-

16. NR 95-99 (Walker & Dick, 2001, p. 59).

17. The metaphor of the lab technician is taken up further in the section on space below.

cized.¹⁸ Indeed, as Walker, Dick, and Angelika Berlejung have noted, the cult image was always, even at the start of the ritual, a god.¹⁹ Indeed, it is productive to think of the *chaîne opératoire* of making the cult image not as a linear sequence punctuated by a singular moment of divine transformation, but rather – to borrow a term from computer science – as an “iterative loop”:

Iterative loops are procedural, stepwise processes that iteratively elaborate upon an object toward a desired end. Unlike infinite loops or the closed circuit of feedback loops, the object of processing becomes more refined with each iteration.²⁰

Read then as an iterative loop, the *mīs pī* ritual and its associated incantation tablets describe the gradual refinement as well as the physical and ontological advancement of the cult image into the pure, divine realm. Equally, the ritual underscores a gradual and comprehensive distancing from the impure world of human creation. With the physical dilapidation of the cult statue came its distancing from the divine world, and the need to once again renew its connection to divinity through multiple “mouth-washings”. The *mīs pī* loop would begin anew.

18. As Angelika Berlejung (*contra* Peg Boden) has argued, the *mīs pī* ritual is not to be understood as a linear progression wherein an inanimate statue becomes a living god. The statue, she argues, was a god from the start: “Peg Boden is forced to ignore the immanent structure of the ritual in order to delineate the three phases that correspond with the classical structure of a rite of transition. In her efforts to support her hypothesis that the mouth-washing ritual belongs to this type of rite she tries to prove that the linear sequence of separation, transformation and affiliation occurs only once in the whole ritual; the basis of her idea is that the mouth-washing ritual is meant to change the quality of the image which starts as a mere material object and ends as a god. The starting point seems to be questionable since it is not evident that the image assumes a completely different quality by virtue of the ritual itself. It was ‘god’ both before and after the mouth-washing ritual. The difference was that it had shed its terrestrial origin and was only a creation of those gods who already participated in its fabrication in the workshop; after the ritual, the statue disposed of all its perceptive and vital functions, could exercise its divine powers and this be integrated into its divine and earthly social context” (Berlejung, 1997, p. 70).

19. We see this notion reflected as well in the sourcing of the materials themselves, which come from a holy forest, as discussed below in § 1.3.

20. Whereas here, “iterative loop” refers to a procedural process (namely, the *mīs pī* ritual), Vertesi employs the term in the context of scientific collaboration; as noted by Vertesi (2002, p. 246), the term is adapted from computer science.

1.1. TIME. A FAVORABLE DAY FOR CRAFTING A GOD

The introductory section of the *mīs pī* procedure begins with an immediate reference to time: “When you wash the mouth of a god, on a favorable day at dawn you go into the countryside, to an orchard on the bank of a river, and you observe sunrise”.²¹ Against the background of this opening phrase is a scholarly practice known as hemerology that understood the cultic calendar as a collection of days which could be categorized as “favorable” (*magru*), unfavorable (*lā magru*), and evil (*lemnu*). Hemerologies facilitated calendrical adjustments for cultic events, including dress ceremonies and new year festivals. Moreover, hemerological knowledge provided the basis for catalogs that listed auspicious days,²² as in, for example, the identification of lucky days for the birth of a child, a particularly pertinent metaphor in the context of craft production.²³ In short, hemerological knowledge was knowledge of-when.²⁴ Over the centuries this form of expertise gained in both sophistication and precision, such that by the Neo-Babylonian period (6th cent. BCE), a scribe could request that a cultic festival be shifted by a single day in order to clothe the statue of the sun god Šamaš at the most favorable time.²⁵

Within the context of the Neo-Assyrian texts under discussion, craft and technical procedures employed hemerological language regularly. However, in contrast to the textual corpora of hemerologies, neither the *mīs pī* nor glassmaking recipes discussed below make reference to a particular day of the month corresponding to the known hemerologies published by Alisdair Livingstone.²⁶ A side-by-side comparison of the Nineveh instructions for making colored glass alongside the *mīs pī* procedures, sheds light on the clear similarities between the two synchronic text traditions:

21. Translations (unless otherwise noted) after Walker & Dick, 2001, p. 52.

22. Further points of contact may be found in the building rituals discussed by Ambos, which too feature references to making things during an auspicious time and share compelling links with the calendrical omen series *Iqqur īpuš* (see Ambos 2010, pp. 233-234).

23. Stol & Wiggermann, 2000, pp. 91-93.

24. Text editions of Assyro-Babylonian hemerological texts may be consulted in Livingstone, 2013.

25. Robson, 2004, p. 56.

26. Glassmaking recipes do make mention of the month of *Abu* (wr. ^{iti}NE), which refers to the ideal time for cutting poplar wood used to ignite the smokeless fire of the glassmaking kiln. This reference should not be taken literally, however. As discussed elsewhere, the meaning here is tied to a hermeneutical link between the writing of the month name ^{iti}*Abu*, which indexes both the noun for father (*abu*) as well as the cuneiform sign used to in the writing of “fire” (IZI/NE). See further Escobar, 2019, pp. 121-122.

| NEO-ASSYRIAN <i>Mīs Pî</i> | NEO-ASSYRIAN GLASSMAKING RECIPES |
|---|---|
| <p>When you wash the mouth of a god, on a favorable day at dawn you go into the countryside, to an orchard on the bank of a river, and you observe sunrise; you set up a marker stone, You return to the city and inspect the designated materials. At the first half of the double-hour of the day you return to the countryside and you take a load of reeds, tie reed bundles, arrange them up in a circle, and make reed-huts for Ea, Šamaš, and Asalluḫi. You recite [three tim]es the incantations “Pure reed, long reed, pure node of a reed. Marduk saw your pure clay in the Apšû” to the reed huts.¹</p> | <p>When you lay the foundations of a glass-making kiln, you search repeatedly for a suitable day during a favorable month, so that you may lay the foundations of the kiln.²</p> |

The resemblance between the opening lines of these two texts is not merely coincidental. Rather, this ritual rubric points to an epistemological project in ancient Assyria that, by the mid-first millennium, sought to collect and appropriate all types of knowledge, including artisanal craft knowledge, within a scholarly – and in the present case, procedural – context.²⁷ Reading the two introductions in tandem underscores why the three *themata* that frame this paper (*i.e.* “purity” as represented in time, space, and the material world) are critical to our understanding of the interaction between craft and ritual in Assyro-Babylonian scholarship. In both sets of texts, we are continually confronted with the notion that artisanal knowledge, *i.e.* how to make a glass kiln, or how to craft a cult image, is co-dependent on knowledge of the rites and procedures available only to learned scribes. Both the *mīs pî* and the glassmaking procedures are directed towards a generic “you” (the grammatical subject of the texts), making them appear to be practical manuals. At the same time, both texts begin with an immediate appeal to ritual timing, knowledge “of-when”, which was circumscribed to a particular set of experts, here, *āšīpu* and *ummānu*, an epistemological coupling we will see replicated in ritual production of the *lilissu* drum (§ 2.3).²⁸ “When” – *enūma* in Akkadian – marks the beginning of the three texts under discussion:

27. A recent argument for reading the glassmaking recipes as scholarly texts may be found in Escobar, 2019; for valuable resource for understanding the socio-intellectual history and collecting practices of Assyrian, see Robson, 2019.

28. In the case of the *lilissu* ritual, the epistemological pairing is between the *kalû* “lamentation priest” and *ummānu* rather than *āšīpu-ummānu* of the *mīs pî*.

“When you wash the mouth of a god...”
 “When you lay the foundations of glassmaking kiln...”
 “When you want to cover the kettledrum...”²⁹

Against the background of these opening phrases lay the performative and cultural association of cult objects with the new year’s *akītu* festival, which featured, prominently, the most famous “when”-text in Assyro-Babylonian scholarship, the Babylonian creation myth *Enūma Eliš*.³⁰

Timekeeping was also managed in terms of short-time intervals, notably, the *bēru* or “double-hour”. A *bēru* is a fixed-length time unit of 2 hours and represents a subdivision of a full day (sunset to sunset), which consisted of 12 *bēru*. In first-millennium astronomical contexts, *bēru* measurements were employed relative to a reoccurring phenomenon, as in, for example, 4 *bēru* before sunrise or sunset. Just as the *mīs pī* ritual employs the *bēru*, the glassmaking procedures are interjected by a minor ritual that calls for sacrificing sheep and setting up purifying deities called *Kubu* (to be discussed fully in the section that follows). Here, we are given instructions for setting up these *Kubu* deities within a specified time frame of two double-hours:

“In the process, you set up *Kubu* within two double hours (*bēru*). You sacrifice a sheep. You make a funerary offering to experts of yesteryear. You collect the ingredients in a (casting)-mold and set it down into an *utūnu*-kiln (...)”³¹

These units of short time are further strengthened by appeals to astral irradiation, *i.e.* the use of night or astral influence on the production of a cult object or medical remedy. In both the *mīs pī* and glassmaking texts, raw materials are left to sit under the night sky, a *topos* well known from medical recipes. Moreover, knowing when it was appropriate to make things pure was essential to preparing a pure space for craft production, as we shall find in the sections that follow.

29. Linssen, 2004, p. 95. On the topic, see § 2.

30. On the performance of the new year’s festival, see Frahm, 2010.

31. K.4266+.

1.2. A PURE SPACE. ^dKUSU AND ^dKUBU AS AGENTS OF PURIFICATION

Making a creation space pure, as Schwemer explains, entailed the earthly recreation of an uncorrupted space divine within the human world, a commitment achieved through both word and deed:

“The gods were perfect, undisturbed immortal beings, and since the key purpose of the cult was to provide appropriately for the gods (thereby ensuring their contentment and goodwill), anyone and anything that entered this sphere had to conform to their standards. This not only demanded general intactness and the absence of any abnormality but also a clean and neat condition. As in many cultures, these standards converged in a complex concept of purity that stipulated the protection of the gods’ dwellings – the temples with their shrines – from any defilement. Before people and objects were allowed access to this realm, they had to undergo scrutiny and specific purification rites, among them the so-called ‘washing of the mouth’”³²

In addition to protecting against the defilement of a sacred space, it should also be understood that the physical properties of crafting a refined object – be it a cult statue or colored glass (to be discussed in the section that follows) – demanded surgical attention to proper rites.

| <i>Mīs Pī</i> , NR 55-60 | GLASSMAKING RECIPES |
|---|--|
| <p>In the house of the craftsmen (<i>bīt mummi</i>), where the god was created, you sweep the ground; you sprinkle pure water. For Ea, Asalluḫi and that god you set up 3 censers of juniper, you libate the best beer.</p> | <p>As soon as [you complete (the construction of)] the kiln, in the house of the kiln (...) you set down <i>Kubu</i> deities in order that an outsider or stranger cannot enter; one who is impure cannot cross their (<i>Kubus'</i>) presence. You will constantly scatter aromatics offerings in their presence.</p> <p>On the day that you [set down] the glass³ within the kiln, you make [a sheep] sacrifice in the presence of the <i>Kubu</i> deities, (and) you set down a censer (with juniper and pour) honey. You (then) ignite a fire at the base of the kiln. You (may now) set down the glass within the kiln. The persons that you bring close to the kiln must be purified, (only then) can you all them to sit near (and overlook) the kiln.</p> |

32. Schwemer, 2011, p. 426.

Because a full discussion of the *bīt mummi* (and *bīt māre mummi*, translated here as “house of the craftsmen”)³³ is presented in § 2.2, this section will focus instead on the purification rites associated with the divine/demonic agents charged with purifying the spaces of craft production in the *mīs pī* ritual and in the glassmaking recipes: the deities known as *Kusu* and *Kubu*. In determining the function of these deities, we will also expand upon their associative range, including their analogical connection to purity via libation, fire, incense, animal sacrifice, and their role as interlocutors in the invocation of craftsmen from bygone eras.

In both the mouth-washing and glassmaking procedures juxtaposed here, we find that *Kusu* and *Kubu* deities function as ersatz technicians who mediate between human and divine craft production by means of purification. In much the same way as the *āšipu* of is legitimized by the gods (Ea and Asalluḫi in particular), the craftsman’s labor and the technical execution of a divinely sanctioned craft – whether glassmaking or the production of a cult statue – is mediated through the purifying actions of the deities *Kubu* and *Kusu*.

In an incantation to Girra,³⁴ the god of fire, preserved on Incantation Tablet I/II of *mīs pī*, we find an appeal to the deity *Kusu*, described as “the chief exorcist of Enlil”:

“(Incantation:) Girra, superb, august, bearer of the awesome radiance of the gods,
famed warrior, whom Ea has endowed with awe-inspiring splendor,
who grew up in the Apsû a pure place; in Eridu the place of destinies he duly established.
His bright light reaches the sky; the tongue of his light like lightning flashes,
Girra whose light as the day is constantly kindled;
Kusu the chief exorcist of Enlil swung the censor and the torch,
and his bright appearance lights up the darkness.
Asalluḫi/Marduk the son of Eridu laid down a spell;
swung the (censer) over the god; made him clean and bright.
May the god become pure like heaven, clean like the earth,
bright like the center of heaven. May the evil tongue stand aside.
Incantation for Girra for cleansing a god”³⁵

As Piotr Michelowski has argued, in the 3rd and 2nd millennia *Kusu* was a divinity associated with birth and ovens, paired with the fire god Girra in an Old Babylonian

33. Note that the glassmaking recipes refer to a *bīt kūri*, or “house of the kiln” which appears to occupy a similar conceptual and practical space as the *bīt mummi*.

34. Girra is also known as Gibil (Black & Green, 1992, p. 88).

35. Walker & Dick, 2001, p. 110.

incantation (written ^dKÛ.SU₁₃/SÛ).³⁶ In the 1st millennium *Kusu* (written ^dKÛ.SÛ) appeared in ritual procedures including the opening of the mouth ceremony, *mis pî*, and was directly associated with craftsmen and technical purity. In K.4928+ as well, the divine being *Kusu* is referred to as the chief exorcist of Enlil,³⁷ a companion to craftsmen and a being linked to purification by means of washing:

“*Kusu*, the chief purification priest of Enlil, has purified it [the divine statue] with a holy-water-basin, censer, and torch, with his pure hands (...). May this god become pure like heaven, clean like the earth, bright like the center of heaven. May the evil tongue stand aside. Incantation: *suila* prayer for opening the mouth of a god”³⁸

Indeed, while the appearance of *Kusu* is rare, the deity’s presence is not unexpected within a ritual craft context, as the function of the deity is to act as an interlocutor between the pure craft space of the divine realm and the impure human world. Framed within an analogous modern laboratory context, and within the present discussion of spatial purity, we can also think of the *Kusu* (and *Kubu*-deities below) as lab technicians. A key role of lab technicians is to care for and maintain the boundaries between the “clean lab” and “dirty lab”; as Barley describes:

“Routine paperwork, for instance, was performed in the dirty lab as was any aspect of a procedure considered impure, such as the sacrificing of mice. The clean lab was reserved for operations on cells and the integrity of its boundary was carefully observed. The door connecting the two areas was shut at all times and the staff shed lab coats worn in the dirty lab before entering the clean”³⁹

While a direct comparison between the *bīt mummi* or *bīt kūri*⁴⁰ and a modern laboratory would seem scientific at best,⁴¹ one could hardly deny the family resemblances shared by these spaces and the *Kusu* and *Kubu* “technicians” overseeing their use. Replace a lab mouse with the dead sheep of the glassmaking recipes, replace lab protocol with an incantation preventing the entry of impure persons, consider the

36. For earlier attestations of *Kusu*, see Michalowski, 1993.

37. Walker & Dick, 2001, p. 204.

38. *Mis Pi* Incantation Tablet III, 89-97, translation: Walker & Dick, 2001, p. 151.

39. Barley & Bechky, 1994, pp. 108-109.

40. *I.e.* the ritual space wherein the glassmaking kiln is constructed, literally “house of the kiln”.

41. By “scientific” I mean the attempt to validate non-scientific forms of knowledge as ideologically or functionally similar to those used the sciences.

historiographical “invisibility” of laboratory technicians (*Kusu* and *Kubu*) included in our analyses of scientific and ritual procedures, and the analogues between the two traditions become increasingly substantial.⁴²

Indeed, the *Kubu*-deities from the glassmaking recipes have remained largely invisible in A. Leo Oppenheim’s edition of the glassmaking recipes, wherein they amounted to little more than apotropaic beings that did not figure largely in his interpretation of the Nineveh glassmaking recipes:

“The nature of these [*Kubu*] ‘gods’ is, however, quite uncertain, and their function can only be described as vaguely apotropaic. They belong to the popular levels of Mesopotamian religiosity of which little is known. Suffice it to state here that the *Kubu*-deities are in no direct way related to the production of glass though they may in some way relate to the technological use of fire.”⁴³

The classification of *Kubu* as demons and the personification of stillborn children is based the appearance of *Kubu* in medical contexts, but the category of demons is fraught with ambiguity.⁴⁴ As Gina Konstantopoulos has argued, that “the same demonic figure could act benevolently or malevolently suggests that they did not possess fixed natures but should instead be considered and classified by their actions.”⁴⁵ Therefore, in disambiguating the role of these figures we will necessarily turn away from the messy question of theological classification and turn our focus instead towards their functions in the purification contexts. The god/goddess *Kusu* have also been the subject of recent debate concerning the gender and historical association of *Kusu* as a grain goddess.⁴⁶ The arguments below are not concerned with *Kusu*’s gender. Nevertheless, it is important to consider what role *Kusu* played in processes of purification enumerated in the *mīs pī* ritual; this task, in turn necessitates a turn towards philological (specifically, onomastic) disambiguation before returning to the present theme, namely, concepts of spatial purification.

The accompanying table juxtaposes intertextual references to divine purification agents whose initial sign values are DINGIR.KÛ, or more precisely ^dKÛ.X, where

42. “Invisibility” here refers to the classic work of Shapin (1989) on invisible technicians and why they have been written out of the history of science.

43. Oppenheim *et al.*, 1970, p. 33.

44. See Table 1 for details. A recent discussion of *Kubu* as birthing demons may be found in Sibling-Plantholt, 2021, pp. 6-7.

45. Konstantopoulos, 2020, p. 2.

46. Simons, 2018.

X stands as a placeholder for any given cuneiform sign. By cataloging the appearance of cuneiform sign KÛ meaning “pure” preceded (in most cases) by the divine determinative DINGIR, we can begin to map the various iterations of “pure” deities that may have been known to Assyro-Babylonian scholars.⁴⁷

TABLE 1. AGENTS OF PURIFICATION

| TEXT CATEGORY | ORTHOGRAPHY | SOURCE |
|--|--|---|
| “Washing/Opening of the Mouth” Ritual (Mīs Pī) | ᵀKÛ.SÛ; in earlier periods, this deity was written ᵀKÛ.SU ₁₃ (BU), thus historically, <i>Kusu</i> and <i>Kubu</i> are closely related orthographically. | In K.4928+ and elsewhere in <i>Mīs Pī</i> , the divine being <i>Kusu</i> is referred to as the chief exorcist of Enlil, ⁴ a ritual companion to craftsmen and a being closely tied to purification by means of washing: “Kusu, the chief purification priest of Enlil, has purified it [the divine statue] with a holy-water-basin, censer, and torch, with his pure hands...May this god become pure like heaven, clean like the earth, bright like the center of heaven. May the evil tongue stand aside. Incantation: <i>šuilā</i> prayer for opening the mouth of a god”. ⁵ |
| | ᵀkù-si ₂₂ -bà[n-da] | Kusibanda appears in the <i>mīs pī</i> incantation tablets alongside mentions of metalworking. In Incantation Tablet III, we find “the statue is of gold and silver which <i>Kusibanda</i> has made”. ⁶ Elsewhere, on Incantation Tablet V: “Kusibanda, [the great goldsmith] of Anu, has prepared it in due form with red gold”. ⁷ |

47. For further discussion of the sign KÛ and its connection to purity, see Benzel, 2015.

| | | |
|-------------|--|--|
| Medical | ^d KÛ.BI | JoAnn Scurlock and Burton Andersen (2005), just as Thureau-Dangin, understood <i>Kubu</i> as “the demonic personification of stillborn children”. ⁸ They relate a number of medical sources wherein <i>Kubu</i> are associated with childhood afflictions. ⁹ |
| Glassmaking | ^d KÛ.BU-MEŠ, ^d KÛ.BI | What distinguished the orthography of <i>Kubu</i> deities in the glassmaking recipes is that they are represented using the plural marker, written ^d KÛ.BU-MEŠ. Their function is to purify the glassmaking kiln as well as protect against any impurities (material or non-material, human and non-human). They also facilitate in invoking craftsmen (<i>ummânu</i>) of eras past. |
| Lexical | ku-u-bu, ku-bu, ^{uzu} KU.BU | The term <i>Kubu</i> appears in the first millennium lexical commentaries of the sign list Aa and the series Murgud (a lexical commentary on the thematic series Ura). ¹⁰ In these lexical series, <i>Kubu</i> is written syllabically ku-bu (K.10072) ¹¹ or logographically ^{uzu} KÛ.BU (K.4368). ¹² In Murgud, <i>Kubu</i> occurs in the context of with the female reproductive organs, fetuses, and the amniotic fluids: ^{uzu} KÛ.BU = <i>nîd libbi</i> “laying of the womb” (K.4368, obv. i 3’). |
| Literary | <i>Kubu</i> is written ^{uzu} KU.BU in the creation epic <i>Enûma Eliš</i> this may also be read logo graphically UZU KU.SU ₁₃ for <i>šîr Kusu</i> , “skin of the divine creation being”. | Note the sign KÛ for pure is not used in this orthography, as what is being described is not a divine entity per se, but rather the hide (<i>šîru</i>) left over from the cosmological birth of Tiamat. |

An overview of such deities (Table 1) reveals two compelling points. First, we find a clear thematic overlap of ^dKÛ.X deities within craft production and birthing contexts, including the close connection of these deities to production and purification by means of both fire and water. This first point aligns with our understanding of purification ceremonies writ large, including the well-known ritual incantation

series *Šurpu*, a mainstay of the *āšiputu*, *i.e.* the lore of the exorcist. Second, we are confronted with the orthographic – or more precisely, etymographic – possibility that *Kusu* and *Kubu* may have been, at one time, the same deity.

Indeed, the Old Babylonian writing for *Kusu*, KU-SU₁₃, employs the sign SU₁₃, which may also read BU. An orthographic change occurred in the first millennium wherein SU₁₃ (BU) was replaced by SÛ for the writing ^dKÛ.SÛ. The etymographic relation between the SÛ and BU signs are clear, as the two sign values are historically related.⁴⁸ Thus, an argument can be made that the *Kubu* of the glassmaking recipes and *Kusu* of the *mīs pī* are related, and may likely belong to the same family of deities. It is clear, in any case, that the two text traditions share intellectual contexts, thematic and semantic resemblances, and etymographical (*i.e.* orthographic) links that cannot be overlooked. Moreover, the familiar metaphorical relationship of the kiln as a mother's womb (we still call the womb an "oven") – a metaphor that features this very set of glassmaking recipes in Mircea Eliade's (1971) *The Forge and the Crucible* – further exemplifies the salience of conjuring divine beings associated with fetuses.⁴⁹ A Late Babylonian birth incantation from several centuries later makes this metaphorical association explicit:

SpTU 5, 248 obv. 26-30

She comes out from the watercourse and goes up to a potter's kiln and embraces the kiln and speaks as follows:

"Pure kiln, great daughter of Anu, in whose middle a fire is burning. Abdomen, in whose middle warlike Giru has established his dwelling, you are sound and your equipment is sound. You fill and you empty, but I am pregnant and I cannot deliver soundly what is in my womb".⁵⁰

These literary, and metaphorical readings can be subsumed under the broader cultural associations of birthing, ovens, creation, and infant afflictions with which the

48. Borger, 2004, pp. 158-159, p. 376, sign no. 580.

49. Namely, Mircea Eliade's (1971) *The Forge and the Crucible*. *Kubu*, and Eliade's interpretation of *Kubu*, are also mentioned in Stol & Wiggerman, 2000, within their discussion of complications during pregnancy (p. 32); more recently, for birth metaphors in glassmaking, see Thavapalan, 2021.

50. SpTU 5, 248 (P348835) obv. 26-30, translation Graham Cunningham, for which see: <http://oracc.org/cams/gkab/P348835>. For a recent discussion of this same incantation, see Couto-Ferreira, 2013.

Kubu of the glassmaking recipes were associated, and which are explored fully in § 2.2 in the examination of the procedure for the *lilissu* drum.

1.3. THE MATERIAL WORLD. SOURCING SACRED MATERIALS AND CONCEPTIONS OF “GLASS”

The *mīs pī* ritual, when read alongside the incantation tablets, provides a procedural answer to the question: How can a god be made? Making a god, or indeed, overseeing the production of a divine object entails a deep knowledge of the material world, including sourcing and quality control of raw materials. It also requires knowledge of what materials can be used in place of others. In this section, I focus on two material categories: wood and stones (including glass). Descriptions of wood and precious stones – namely, their value, form, and function within the *mīs pī* and contemporaneous glassmaking procedures – elucidate how the *chaîne opératoire* of cult objects and glass production is predicated on sourcing raw materials from a pure source. We can begin by considering the following passage from Incantation Tablet III, which claims that the wood used to craft the cult image was sourced from a pure cedar forest:

“This statue was made in the entire heavens and earth; this statue grew up in a forest of *ḥašur*-cedar; this statue went out from a mountain, a pure place; the statue is the product of gods and humans”.⁵¹

The notion of a holy source of wood used to craft the statue is again mirrored in STT 199, which preserves an extensive incantation describing the purity of the lumber used to craft the statue; the first part of this incantation reads:

“[Incantation:] as you come out, as you come out in greatness from the forest:
as you come out from the pure forest, wood of the pure forest,
as you come out from the pure mountain, [wood] from the pure mountain,
as you come out from the pure orchard, wood from the pure orchard,
as you come out from the pure high plain, wood of the pure high plain,
as you come from the pure river-bank, wood of the pure river bank”.⁵²

51. IT III 55ab-68ab (Walker & Dick, 2001, pp. 150-151).

52. STT 199 (Walker & Dick, 2001, pp. 119-120).

While the *mīs pī* procedure from Nineveh is pithy with regard to the matter of sourcing materials for making a cult statue, the incantation tablets are by contrast, extensive and detailed. Read in tandem, our understanding of the ritual changes, from a framework wherein materials (here, various types of wood) undergo a mundane to sacred linear transformation, to a model that underscores iterative preservation – *i.e.* where the goal is to maintain the purity of the materials after their removal from a sacred source. A similar approach to material sourcing can be found in the glassmaking recipes which state:

“You burn various wooden logs at the base of the kiln (including): thick logs of poplar that are stripped, and *quru*-wood containing no knots, bound up with *apu*-straps; (these logs are to be) cut during the month of *Abu*; these are the various logs that should go beneath your kiln”.

The passage, which contains a number of hermeneutical associations discussed elsewhere,⁵³ exemplifies the same phenomenon. In the case of the glassmaking recipes, the purity of the poplar wood chosen on a particular month allows for a pure fire in the kiln, one characterized as “smokeless” throughout the recipes. As we will find in § 2.3, a similar appeal is made to the use of pure wood in the making of the *lilissu* drum.

Stones, in contrast to wood, present a separate interpretive challenge, one tethered directly to a problem of classification, ontology, and efficacy. Continuing our analysis of the passage above from Incantation Tablet III, we read:

“The statue (has) eyes which Ninkurra has made; the statue (has)... which Ninagal has made; the statue (has) features which Ninzadim has made; the statue is of gold and silver which Kusibanda has made; [the statue ...] which Ninildu has made; [the statue ...] which Ninzadim has made; this statue of *hulālu*-stone, *hulāl* ini-stone, *muššaru*-stone, *pappardillū*-stone, [*pappardillū*-stone, *dušū*-stone], ‘choice-stone’, *hulālu parrū* [...], *elmešu*, *antasurrū*-stone ... by the skill of the *gurgurru*-craftsman”.⁵⁴

Although many of the individual stones in the passage above remain unidentified (hence the italics), the role of stones as agents of purification is ubiquitous and clear from both ritual and medical scholarly contexts. What is less clear is

53. Escobar, 2019.

54. IT III 55ab-68ab (Walker & Dick, 2001, pp. 150-151).

whether the stones listed in this incantation are, in modern terms “real” or “artificial” stones, *i.e.* glass imitations.

An always compelling debate in matters of materiality is the ontological status of an artificial stone, and whether our intuitive and hierarchical lapidary typologies have any resonance in Assyro-Babylonian scholarship. In short, did cuneiform scholarship distinguish between “real” and “artificial” stones? If we begin with nomenclature, we would be obliged to say that the Akkadian term *abnu* “stone” offers no distinction between stone mined from nature and “stones” (*i.e.* glass) made in a kiln. Indications to the contrary are found not in cuneiform scholarly contexts of the procedures under discussion, but rather, in a late second millennium inventory list (VAT 16462) dating to the reign of the Middle Assyrian king Tukulti-Ninurta I (1243-1207 BCE). Here, on VAT 16462, and, to my knowledge, scarcely elsewhere, do we find a clear delineation between lapis lazuli “from the mountain” (*uqnû šadi*) as opposed to blue glass, or “lapis lazuli from the kiln (*uqnû kûri*)”. That a clear distinction between real and artificial stones is so difficult to identify in the first millennium scholarly contexts is both telling and important to the present analysis, as it indicates that the use of glass imitations in cult statues would not have diminished the divine ontological status, nor efficacy of the cult image in a way.

Eleanor Robson, in her analysis of the Neo-Assyrian glassmaking recipes, has noted the degree to which science, magic, and religion are mutually codified in these technological texts and how knowledge of stones (and by extension, glass) was central to explanatory, medical, and craft scholarship at Nineveh.⁵⁵ The many stones enumerated in the passage above find parallels in medical and lexical scholarship, including the explanatory list on the properties of stones *Abnu Šikinšu*. Therein we encounter the “stone” *antasurrû* (written AN.TA.SUR.RA) an unidentified substance which may have been composed of glass or metal, but which, regardless of its material constitution, unequivocally holds the power to create holy water in the *mīs pî* ritual.⁵⁶ Stones whose appearance (*šiknu*) resembles “eyes”, such as *hulal-īni* in *mīs pî* or the “fish eye” (*in nūni*) stone of *Abnu Šikinšu*, creates a similar case classificatory ambiguity. Are these stones made of glass? Is a glass replica as efficacious as a precious stone mined from nature? If the *glassmaking* and *mīs pî* procedures are an indication of Assyro-Babylonian scholarly attitudes, then what we find is that this ontological ambiguity was embraced by the exorcists, craftsman, and cuneiform scholars charged with maintaining these boundaries as fluid and endlessly polyvalent. The first section

55. Robson, 2001, pp. 50-54.

56. Schuster-Brandis, 2008, p. 395.

began with the question: how can a god be made? And as we have found, the answers are as extensive as the *mīs pî* ritual itself. A god is made through repeated searches for favorable days, repeated incantations with appeals to the gods, continual washings, and, thereafter, an iterative process of maintenance to battle the impure decay of time. Purity, against the background of time, space, and the material world was only ever a temporary state, one which we will explore further, as we examine the making of a *lilissu* drum.

2. THE RITUAL FOR THE COVERING OF THE *LILISSU* DRUM

The social environment that came into being during the Hellenistic period was fertile ground for the last vestiges of the Babylonian traditions and the Greek culture to interact with one another and exercise a reciprocal influence.⁵⁷ The scholarly collections retrieved in Seleucid Uruk stand witness to the type of specialist knowledge that circulated among the urban intellectuals of the period.⁵⁸ Among these elite families of scholars, there were the descendants of *Sîn-lēqe-unnîni*, the famous editor of the *Gilgameš* Epic; this family had since the Achaemenid period a monopoly on the *kalûtu*, the profession of the lamentation priests whose duty was to appease the angry heart of the gods through specific rituals.⁵⁹

Appeasing an irate god relied on musical performances, during which the *kalû* played instruments and sang Emesal prayers.⁶⁰ By the 2nd millennium onwards, such performances were accompanied by the *lilissu*, a bronze kettledrum whose rhythmic beating reminded the audience of a god's raging heart. Given the status of *Sîn-lēqe-unnîni*'s family, it is not surprising to find tablets dealing with these prayers and with the ritual for the covering of the *lilissu* drum at Seleucid Uruk, among the records belonging to his descendants.⁶¹

57. For the interaction between Greek and Aramaic in the Babylonian intellectual milieu, see Monerie, 2014. For the mutual influence between the two systems of knowledge, see Beaulieu, 2019.

58. For a discussion on the Seleucid families of scholars, see Wearzeggers, 2003-2004 and Robson, 2017, pp. 463-470.

59. Beaulieu, 2000; Gabbay, 2014, pp. 63-80. Not all the family members were equally involved in the *kalûtu* duty, but even those less connected to cultic performance were highly educated and entertained diversified scientific inquiries. For instance, *Sîn-lēqe-unnîni*'s descendant *Anu-ab-utêr* (112-136 SE) was both a *kalû* and an astronomer/astrologer (*tupšar enûma anu enlil*). On this title, see Rochberg, 2000, p. 372.

60. For a discussion on the evolution of the Emesal prayers, see Gabbay, 2014, pp. 98-102 and 154.

61. Terracotta figurines from Seleucid Babylonia bear witness to the popularity of the musician pairs playing a double-pipe (*aulos*) and a small kettledrum. This cultural hybrid is likely connected to a lam-

The covering ceremony was performed when (1) a new drum was manufactured and dedicated to a god, (2) a worn-out drumhead had to be replaced anew, and (3) during the dedications of temples.⁶² The ritual has largely been reconstructed (Linszen, 2004) thanks to a series of tablets spanning from the Neo-Assyrian (911-612 BCE) to the Seleucid period (312-127 BCE). The textual material is divided between ritual texts and complementary compositions, which include prayers sung during the ritual⁶³ and commentaries about its theological and mythological background.⁶⁴ Among the ritual prescriptions, the longer and more detailed version is the Seleucid tablet TCL 6, 44.⁶⁵

The tablet opens with the explicit reference to the purpose of the ritual: “when you want to cover the *lilissu* drum” (*enūma* LI.LI.ĪZ ZABAR *ana arāmi* IGI-ka). From the very first lines, the scribe used the pronoun “you” to address the reader personally, a fictional device shared with the *mīs pī* and the glassmaking procedures (§ 1.1), which frame the composition in the category of practical manuals; the scribe then arranged the ritual prescriptions in a linear sequence of thematic clusters (Table 2).

entation context (Langin-Hooper, 2020, pp. 136-140).

62. Gabbay, 2014, p. 121.

63. The Neo-Assyrian prayer KAR 50 from Aššur, its partial duplicate K.6060 + K.10820 from Nineveh, and the Late Babylonian duplicate BM 33343. For a detailed edition, see Lenzi, 2018. A second prayer (BaM. Beih. 2) comes from the Rēš temple.

64. See the Seleucid commentary TCL 4, 67 (Linszen, 2004, p. 325; Gabbay, 2014, p. 130, fn. 470, and pp. 138-139) and its partial duplicates BM 54119 (MacGinnis, 1999), BaM. Beih. 2, 8 (Linszen, 2004, pp. 261-262), AO 17626 (Nougayrol, 1947, pp. 30-32, bearing Aramaic characters on the edge).

65. For a recent edition, see Linszen, 2004, pp. 252-262, to be integrated with Gabbay, 2008, pp. 426-427. The tablet in question was kept in Anu’s Rēš temple at Uruk together with other duplicates: BaM. Beih. 2, 5; BaM. Beih. 2, 7 and possibly BaM. Beih. 2, 9 (Linszen, 2004, p. 8).

TABLE 2. STRUCTURE OF TCL 6, 44

| SECTION | LINES | ACTIONS | STEPS | PLACE |
|---------|----------------------------|--------------------------------|--|-------------------------------|
| 1 | col. i 1-6 | selection of the prize bull | | temple courtyard? |
| 2 | col. i 7-II 7 | entering the workshop | hemerology | |
| | col. i 7-9 | | purification of the workshop | workshop |
| | col. i 9-36 | | first round of offerings | |
| | col. ii 1-7 | | second round of offerings | |
| 3 | col. ii 8-14 | purification of the bull | shut the curtains first <i>mīs pī</i> whispering “Oh, prize bull” and “Descendant of Anzu” first consecration singing the <i>eršema</i> “Important one” | |
| 4 | col. ii 15-17 | slaughtering of the bull | singing the <i>šūila</i> “Great gods” slaughtering and burning of the heart | |
| 5 | col. ii 18-32 | procedure for red-dyed leather | flaying removal of the sinew cleaning + unhairing drenching tanning + dyeing covering of the kettledrum disposal of the hide | |
| 6 | col. ii 33- col. iii 28 | purification of the drum | first round of offerings exit of the kettledrum (on the 15 th day) second round of offerings second <i>mīs pī</i> second consecration exit of the kettledrum singing the <i>taqribtu</i> -lamentation | workshop to temple courtyard? |

| | | | | |
|---|----------------|--|--|--|
| 7 | col. iii 29-33 | <i>Geheim-</i> <i>wissen</i> gloss | | |
| 8 | col. iv 1-35 | list of tools and ingredi- ents | | |
| 9 | col. iv 36-37 | final colo- phon | | |

The tablet's colophon indicates that it belonged to the chief lamentation priest (*kalamāhu*) Anu-aḥa-ittannu, son of Riḥat-Anu great grandson of Šin-lēqe-unnīni, whose scribal activity can be dated between years 68 and 73 of the Seleucid era.⁶⁶ As seen above, other Seleucid tablets complete the context of this ritual, however, only TCL 6, 44 was protected with a secrecy formula included in its colophon. The *Geheim-**wissen* colophons, which ward against the damage, theft, and illicit consultation of the text, acted as a protective measure against the misuse of "intellectual property".⁶⁷ So, when tablets moved for consultation, they did so with due caution, pointing to a controlled dissemination of their contents within a narrow scholarly network.⁶⁸

As anticipated above, the ritual prescribed in the tablet was not a Seleucid innovation: it came from a long tradition of manuscripts dating to at least the Neo-Assyrian period. In the colophon of TCL 6, 44, the editor states that the text was copied from an older exemplar.⁶⁹ Likewise, the colophon of the Neo-Assyrian partial duplicate (KAR 60), dated to the 7th century, reports that the tablet was itself a copy of an older *Vorlage*. Such reference to a textual archetype can appear as a

66. The relevance of this ritual within his family profession can be appreciated in the light of the fact that a shorter duplicate (BaM. Beih. 2, 5) dated to the year 150 of the Seleucid era belonged to a distant relative of his, Ana-bēšunu II son of Nidinti-Anu, also a descendent of Šin-lēqe-unnīni (Gabbay, 2014, p. 273).

67. Stevens, 2013; Lenzi, 2018.

68. Tablets, including those with secrecy colophons, could be lent to other scholars, who took care of copying them for their own use (Robson, 2017, p. 469).

69. TCL 6, 44 col. iv 36-37: "Ritual of the lamentation priest. Tablet of Anu-aḥa-ittannu, son of Riḥat-Anu, the chief lamentation priest of Anu and Antu, the Urukian. According to its original copied, checked and made good".

statement of philological purity. Despite this scribal claim, however, we can identify multiple textual traditions at play.⁷⁰

Collectively, there are at least fifteen Neo-Assyrian and Seleucid tablets, from which one can draw information about the drum-covering ritual. These witnesses have many sections in common with TCL 6, 44, including the purification rituals and the mention of the workshop (*bīt mummi*). These shared sections, whose sequence varies among the manuscripts, feature abbreviations, expansions, omissions, or small changes in their wording.⁷¹ However, the most significant variations occur in the section recording the procedure for transforming the bull's hide into the ritually purified, red-dyed cover of the divine kettledrum.⁷² It is precisely this detailed procedural excursus that makes TCL 6, 44 poignant to the present analysis concerning craft and purity in cultic contexts.

Purification rituals that precede encounters with the divine have a long history in Babylonia. Rarely, however, do we find such an elaborate narrative blending of technical prescription and religion achieved through sophisticated hermeneutics and scribal virtuosity. Herein, the transmission of technical knowledge is embedded in a complex ritual setting, which couples ritual purification with material craft.

From a technological perspective, the bull must die so that the drumhead can be obtained from its hide. The procedure for leather crafting required knowledge of the ingredients and of the chemical processes responsible for the transformation of the animal skin into dyed leather. These processes include the cleansing of hair and blood from the bull's hide, the drenching in fat and alkaline baths to stop the natural decay and to soften the hide, and finally, soaking the hide in a mixture of madder and alum in order to dye it.

All of this takes place, however, in a precise ritual space, where the material transformation of the hide into the cover of a divine drum occurs after the ontological dependence between the bull and the *lilissu* is established: only in such a space could the divinity and purity of the chosen bull be transferred to the *lilissu* drum. Purity is ubiquitous throughout the ritual and is echoed metaphorically throughout the text. The purity sought for the ingredients ("fat from a pure cow", "pure grain")

70. A direct transmission of the scholarly material from Assyria to Seleucid Uruk is a quite rare phenomenon, whereas an intermediate passage through other Babylonian cities, especially via Achaemenid Nippur, appears the most plausible scenario for such transfers (Gabbay & Jimenez, 2019, pp. 56-57).

71. Just as example, the incantation to be whispered in the bull's ear is quoted by its incipit in TCL 6, 44 and KAR 60, but it is reported in full length in the Neo-Assyrian tablet KAR 50 (Lenzi, 2018).

72. The Seleucid partial duplicate BaM. Beih. 2, 5 and the Neo-Assyrian KAR 60 have a shorter version of this segment.

recalls the purity of the prize bull chosen for the ritual. The purification of the workshop echoes the double ritual cleansing of the bull and its hide. The pitch-black bull undergoes a process leading it from the darkness of the temple workshop – that represented the primeval subterranean waters, the Apsû – to the bright light of a new day, when the drum finished with its new red cover is brought before the Sun-god as a divine being itself. The divine animal must die to be born again as a divine drum. Crafting is indeed an act of creation.

The Seleucid ritual combines universal themes such as predetermined fate, death as a return to a pristine state, and the achievement of a pure and divine status. Moreover, the text draws on known literary *topoi* like the choice of the right time, the call for secrecy, and deference to ancient authority. It does so through a multilevel narrative disguised in writing, where cuneiform signs open the doors to other meanings. Although many of these themes are developed in a precise textual pattern and with rhetorical devices anticipated already in the Neo-Assyrian period, their appearance in TCL 6, 44 is enriched with elaborate astral frameworks characteristic of the Seleucid era.

2.1. TIME. A FAVORABLE DAY FOR CRAFTING A DIVINE DRUM

Time was a crucial aspect in the performing of rituals. Records show that the *lilissu* drum was played to avert evil during eclipses and adverse events. But did the ritual for the covering of the *lilissu* drum itself need to be performed at a specific time? The Seleucid tablet informs us that the ungelded bull must enter the workshop on a “favorable day” (*ina ūmi magri*), a known formula from “hemerologies”.⁷³ However, hemerological treaties dated to the 1st millennium lack any reference about the time when this ritual should have been performed.

Choosing the right time was a goal achieved through divination. In the 1st millennium, astronomical scholarship was on the rise and astrology progressively replaced extispicy as the preferred divinatory method. The popularity of the astral science can be grasped from the textual output produced by the observation of celestial phenomena, ranging from zodiacs to astronomical diaries.⁷⁴ Astrological compositions made use of other literary genres, including hemerologies, and a broader interest in creating connections between astronomy and other fields of knowledge can be

73. BaM. Beih. 2, 5 records “in a favorable month, on a favorable day” (*arḫi šalme ina ūmi magri*). For hemerologies in the 1st millennium Babylonia, see Jimenez, 2016.

74. Ossendrijver, 2021.

observed in texts from the first millennium, especially commentaries.⁷⁵ The libraries of the lamentation priests thus hosted compendia of celestial observations and divinatory tablets: indeed, these arts were coherent within the *kalû*'s domain of inquiry.⁷⁶

Astronomical diaries provide evidence for two dates on which the *lilissu* drum covering ritual was performed: on the 24th of Arahšamna in year 41 of the Seleucid era (27th November 271 BCE) and, possibly, on the month of Ayyaru in the year 85 of the Seleucid era (May 226 BCE). As one of the Neo-Assyrian tablets concerning the ritual (KAR 50) places the event “in the morning before the sun rises” (*ina šērti lām Šamaš inappaḥu*), Lenzi calculated that on both those dates, at that precise moment, the constellation of the Taurus would have been visible in the sky.⁷⁷ The presence of the Taurus constellation must have been key to the success of the ritual and it likely influenced when the ceremony would have been performed.

Gabbay has indeed examined the links between the ritual prescriptions for the covering of the *lilissu* and the constellations associated with the deities involved in it.⁷⁸ Celestial and chthonic gods are invoked at two points of the ritual, during the purification of the workshop at the start, and after the bull's hide has been transformed into the *lilissu* cover. As noted by Gabbay, the drawing on the reverse of a Seleucid commentary (TCL 6, 47) explicitly associates the bull to the homonymous constellation and also proposes a tripartite layout of the ritual space. This spatial partition may have alluded to the three astronomical paths into which the sky was divided, or perhaps to the three sections of the *exta* identified during the extispicy.⁷⁹

Appropriate moments in the ritual were also framed in terms of directionality. References to spatial orientation are indeed a key feature of 1st millennium cultic literature and the choice to favor celestial reference points (*i.e.* “facing sunrise”) over a simpler cardinal orientation (*i.e.* “facing east”) evokes an astral context. Unsurprisingly, as the ritual started at the first light of dawn, the newly covered drum exited the temple workshop “before Šamaš” (*ana IGI dUTU tušeṣṣi*), the Sun-god. Besides

75. Wee, 2017. For first millennium commentaries, see Gabbay & Jimenez, 2019.

76. The interest in celestial prediction was consistent with the *kalû*'s duties. In fact, they could fail in calculating the exact time of eclipses, as it happened in 532 BCE when the miscalculations resulted in an untimely performance with the *lilissu* drum (Beaulieu & Britton, 1994).

77. Lenzi, 2018, pp. 89-90.

78. The ritual for the covering of the *lilissu* drum also finds analogical parallels in a mythical battle between the god Enmešara, represented by the bull, and Enlil, represented by the newly covered drum (Gabbay, 2018).

79. Gabbay, 2018, pp. 31-33.

indicating the time of the day and the eastern direction, this prescription can also function as an allegory of a new day, and by extension, of the new life of the drum.⁸⁰

In fact, according to the Babylonians, the Sun-god, and more specifically the rising sun, was equated with the birth of a new being and the emergence of a new destiny.⁸¹ As the Sun rose from the Apsû beyond the horizon, so emerged the newborn baby, and in a first millennium bilingual prayer for childbirth both events are expressed with the same verb (È, *ašû* “to rise”, “to come out”).⁸² The location on the eastern horizon for both the rising sun and the newborn child, which has also been proposed for the bull in the ritual space of the workshop,⁸³ represents the juncture between the heaven and the netherworld, the liminal space and time of the day *par excellence*, when fate was determined.⁸⁴ Like the Sun and the newborn child, also the drum “is risen” from a place of darkness (the *bīt mummi*).⁸⁵ This analogy, which reminds of the obscurity and the life-bearing properties of the mother’s womb, has also been proposed for the glassmaking kiln (§ 1.2).

Using the “sunrise” as an umbrella term for both time and space, the ritual plays on oppositions, such as east/west or life/death. The text builds a polyvalent reality, where meanings are stratified one upon the other through analogies. As it will be argued below, other passages in the ritual for the *lilissu* covering aim at creating connections between technical instructions and cardinal points.

2.2. A PURE SPACE. THE *BĪT MUMMI*

The entire process leading to the manufacturing of the drumhead took place in a purified temple workshop called the *bīt mummi*. In the 1st millennium tradition, the *bīt mummi* was the space wherein statues of gods and kings, and cultic objects, including musical instruments like the *lilissu*, were manufactured. This workshop

80. Gabbay, 2018, p. 28.

81. On these analogies, see Polonsky, 2006; Woods, 2009.

82. Polonsky, 2006, p. 303. Note that in some Old Babylonian adoption contracts from Sippar (*i.e.* CT 8, 48), the adopted child must face sunrise to formalize the adoption. Likewise, texts dealing with the manumission of slaves prescribed that the latter faced the rising sun (Westbrook, 2003b, p. 384). This symbolic act marks the beginning of a new life for the participants, cleansed by previous natural and legal bonds.

83. Gabbay, 2018, p. 35.

84. Steinkeller, 2005, p. 35; Woods, 2009, p. 199 and 205.

85. The epithet “the secluded place” (*ašru parsu*) used for the *bīt mummi* in the Seleucid texts recalls one of the epithets of the Apsû, “the dark place” (é-ku₁₀-ku₁₀), the mythical location where the primeval creation took place.

was likely an annex located within the temple precinct, possibly separated from the rest of the building by a gate leading to the open courtyard.⁸⁶ Evidence related to the *bīt mummi* comes from two textual clusters separated chronologically by about a thousand years, which highlight functional variations across time. The first group of texts comes from the kingdom of Mari (1830-1759 BCE) and identifies the *mummmum* as an institution for the apprenticeship of musicians, a sort of conservatory sponsored by the royal palace.⁸⁷ This institution also had its own artisanal space, wherein musical instruments were manufactured and repaired.⁸⁸

In the 1st millennium, the *bīt mummi* became a far more complex institutional space, both in terms of its activities as well as the experts and artisans who worked in its environs. Neo-Assyrian records show that, although the space was still subordinate to royal authority, the *bīt mummi* was now attached to the temple institution in the city of Aššur and even its personnel was selected by means of divination. A royal inscription of king Esarhaddon (680-669 BCE) emphasizes how the construction of the workshop and the selection of its craftsmen were divinely ordained:

Esarhaddon 48, 72-76 (RINAP 104: 107)

“I kneeled recently (seeking) the judgment of the gods Šamaš and Adad, and I stationed diviners to (ascertain) their true decisions. I had an extispicy performed concerning the (selection of the) use of the workshop in Baltil (Aššur), Babylon, and Nineveh, and I placed (before the diviners) separate lists of craftsmen who should do the work and be allowed to enter the secret place. The omens were unanimous: they answered me with a firm yes, told me (it should be) in Baltil (Aššur), my dynastic city, the residence of the father of the gods, the god Aššur. They indicated me the workshop to use (and) the craftsmen to perform the work”.

The exclusivity of the *bīt mummi* is evident in Esarhaddon’s own words, which express concern regarding who would have access to this “secret place”. And by no mean was this distress ill-founded.⁸⁹ References to the activities and the personnel of the *bīt mummi* are not always explicit. However, evidence supports that it

86. Gabbay, 2018, p. 23, fn. 100. The existence of a pathway that separated the workshop from the sanctuary is also confirmed in other rituals (Ambos, 2004, p. 19).

87. Ziegler, 2007, pp. 77-79. As Ziegler suggested, despite no plain connection with the *kalû* is found in the Mari letters, an association with the lamenters is not unlikely (cf. FM 9, 51).

88. See FM 9, 23 and 44.

89. Two letters cast some lights on a case of corruption in the temple of Aššur leading to the theft of a gold sheet (SAA 10, 107) and the arrest of the thieves (SAA 13, 26).

was a meeting place for many craftsmen, including goldsmiths, smiths, stonemasons, jewelers, and carpenters. Several letters witness the shipment of lapis lazuli, semi-precious stones, gold, silver, and other metals to finish or repair statues and ornaments.⁹⁰ In addition to metalworking, artisans occupied themselves with experiments to produce artificial surrogates for semi-precious stones using “fast copper” (URUDU *arḫu*), which were no less efficacious than the natural stones (cf. § 1.3).⁹¹ The *bīt mummi* was clearly a crucible of creativity.

As supported by Esarhaddon’s inscription, the specialized knowledge that gave prestige to craftsmen working in the *bīt mummi* was considered a *pirištu*, a type of “secret” belonging to and protected by both scribes and technicians:

Esarhaddon 48, 80-81 (RINAP 4: 108)

“I entered the workshop where the renovations (would be done) and I brought carpenters, jewelers, copper smiths, (and) stone cutters, skilled craftsmen who know the secrets (*mārê ummâni lē’ ūti mudê pirišti*).”⁹²

Once manufactured, divine objects were purified from the human hands that touched them.⁹³ Therefore, the personnel gravitating around the *bīt mummi* must have known how to craft objects as well as how to make them pure. In Neo-Assyrian sources, the workshop is in fact associated also with scribal knowledge, as stressed by occasional references to Nabû or Nisaba, the patron deities of the scribal arts, and by the presence of novice scribes called “sons” of this institution.⁹⁴ The overlapping of the artisanal and literate expertise associated with the *bīt mummi* – which embraces music, crafts, and literary production – is reflected in the polysemy of the word *mummu*.

The etymology of *mummu* is complex and has been often object of interest for Assyriologists.⁹⁵ In particular, the connection of *mummu* with noise and creation

90. Menzel, 1981, p. 287.

91. SAA 13, 127, rev. 4-17. For “slow copper” and “fast bronze” (*i.e.* molten and un-melted) and their use as colorants to produce red and blue glasses, see Thavapalan, 2020, p. 206.

92. In the *mīs pī* ritual the *bīt mummi* is indeed called the *bīt mārê ummâni* “the house of the craftsmen” (Walker & Dick, 2001, p. 57, l. 55).

93. The recitation of the craftsman’s denial in the *lilissu* ritual is preserved in the Neo-Assyrian version KAR 60 (rev. 3-4).

94. STT 38 Kolophon, l. 3: ^[lu2]*šamallī šehru mār mummu*.

95. A thorough discussion of this topic is beyond the scope of the present contribution. For an overview, see Frahm, 2013 with previous literature.

has been recently addressed with more emphasis.⁹⁶ The polyvalence of this word can be best appreciated in the *Enūma Eliš*, wherein noise characterizes both divine and human actions, and marks the act of creation itself.⁹⁷ Here, creation occurred in the Apsû, the subterranean life-giving waters where the demiurge god Ea resided with his vizier, called himself Mummu.⁹⁸

The physical space of the *bīt mummi* served as a meeting point of both divine and material creation. Precisely because the divine *lilissu* had to be fashioned materially and “born” cosmologically, the *bīt mummi* served as the ideal venue for craft and creation to syncretize.⁹⁹ As discussed in § 1, cult objects and images were “born in heaven and made on earth”.¹⁰⁰ Such a conceptual framework explains why artisanal expertise in this context was protected as secret knowledge, as well as why the workshop represented, in more than one ontological sense, a “birthing” place. Socially, and in terms of intellectual history, the presence in the same workshop of both artisans and scribes may have fostered the codification of craft knowledge into scholarly texts. An exemplary instance of this interaction of craft and scribal knowledge is the technical excursus found in TCL 6, 44, which explains how to dye leather.

2.3. THE MATERIAL WORLD OF THE *LILISSU* COVERING RITUAL

Rituals and cultic events in Mesopotamia were no trivial matter and textual sources underscore the need to resort to cooperating experts to accomplish them. One such collaboration, between the lamentation priest and his peers, is hinted at in the first lines of TCL 6, 44, where a “knowledgeable expert” (*ummānu mudû*), possibly understood as a diviner, is called upon to choose the perfect bull. This expert is tasked with quality control, inspecting the animal to ensure that its physical integrity and thereby purity – which was predetermined by the gods – fully complies

96. The meanings of the word *mummu* (i.e. “knowledge”, “creation”, “noise”, “craft”) reflect the activities that took place in the *bīt mummi*. Cf. Shehata, 2010, p. 214: “*Das mummu ist der Ort, an dem die ‘Handwerke’ (technae) des Ea versammelt sind: Kunsthandwerk, Dichtung und Musik*”.

97. For an analysis of the word *mummu* and its entanglements in the *Enūma Eliš*, see Michalowski, 1990. On the *topos* of creation, see Frahm who interprets *mummu* as “an abstract notion of creativity and dynamism” (Frahm, 2013, p. 113).

98. Throughout the Mesopotamian literature, Ea/Enki’s material and spiritual creations occurred in the Apsû (Shehata, 2010, pp. 213-214). On the mythology of the vizier Mummu, see Lambert, 2013, pp. 218-221, who highlighted how the word *mummu* combined in time both the nuance of “knowledge” and that of “creative power”.

99. On the manufacturing of the divine images as an act of birthing, see Hurowitz, 2003.

100. Dick, 1999, p. xi.

with the standards of divine design. The instructions advise “you” (*i.e.* the reader), to select a pitch-black bull as follows:

TCL 6, 44 col. i 1-8 (after Linssen, 2004, p. 255)

“When you look for to cover the bronze kettledrum. A knowledgeable expert (*ummânu mudû*) will carefully inspect an ungelded (*šuklulu*) black bull, whose horns and hooves are intact (*šalmu*), from its head to the tip of its tail; if its body is black as pitch (*kîma ittê šalim*), it will be taken for the rites and rituals. If it is spotted with seven white hairs like stars (*kîma kakkabu pešu*), it has been struck with a stick, it has been touched with a whip, it will not be taken for the rites and rituals. When you make the bull enter the temple workshop (*bît mummi*), on a favorable day you will step up to the side of the bull, you will sweep the ground, you will sprinkle pure water (*mê ellûti*), you will conjure the workshop”.

The description of the candidate follows a known *topos* for the “chosen ones” that was rooted in the Assyro-Babylonian tradition of induction rituals. Almost the same wording recurs in other two texts where the physical integrity acts as a mark for the righteousness of the selected individual.¹⁰¹ The first parallel is provided by a passage about the selection of the prospect diviner (*barû*) narrated in the story of Enmeduranki, king of Sippar, who passed on the divinatory arts to humankind in a sort of Promethean revelation.¹⁰² The second parallel is found in the ritual describing the consecration of the priest of Enlil, where the suitable candidate has to prove himself worthy of the priestly office by being whole “from head to toe”, with a body “as pure as a statue made of gold”.¹⁰³ As pointed out by Lambert, the search for perfection alludes to the “man as created” unaltered by human intervention and faithful to the original design.¹⁰⁴ This pristine, immaculate condition, respectful of the divine origin, is also looked for in the prize bull.

101. On the induction of cultic personnel in first millennium, see Waerzeggers & Jursa, 2008; Löhnert, 2007.

102. BBR no. 24 + 25, 28: *ù šu-ú ina gat-ti ù ina ŠID^{mes}-šu šuk-lu-lu*, “if he is perfect in body and limbs” (Lambert, 1967, p. 132). The composite text, preserved in Neo-Assyrian and Late Babylonian manuscripts, combines ritual instructions and a mythological backstory.

103. This bilingual composita, known as “The consecration of an Enlil-Priest”, has been preserved in both Neo-Assyrian and Late Babylonian manuscripts. For the selection of the perfect priest, see Borger, 1973, p. 172, ll. 11-14.

104. Lambert, 1967, p. 133.

After the selection, the bull is led into the temple workshop (*bīt mummi*). Here – after due offerings to the gods and prior to the slaughtering – the ritual instructs the reader to whisper in the bull’s right ear the incantation *Oh great bull, choice bull*.¹⁰⁵ The opening lines of the incantation immediately state the divine origin of the bull, which was created *ab origine* by the gods with the intent to serve as an instrument for the rites.¹⁰⁶ Like for chosen diviners and priests, the absence of physical deformities marks the predetermination of the bull’s fate.¹⁰⁷ This concept of fate is further elaborated in what Lenzi identifies as the *historiola*, a mythological backstory decreeing the nature of the bull through metaphors and persuasive analogies. These associations rely on astral premises that trace a connection between the bull, the constellation of the Taurus, and the divine drum. One of such instances of analogical reasoning can be grasped in the parallel between the “seven white hairs” mentioned in the *lilissu* ritual and the seven stars of the Pleiades located within the Taurus constellation,¹⁰⁸ whereas a more explicit claim is set forth in the Seleucid commentary (TCL 6, 47).¹⁰⁹ As reminded above, the drawing of the bull on the reverse of the tablet bears a legend that matches the animal to the homonymous constellation.¹¹⁰ The statement that the bull was a creation of the heavens is a pivotal premise to support the ontological process of making the divine drum. Using the bull’s hide as a medium, the ritual serves to transfer the divinity of the bull – and all the gods associated with it – to the *lilissu* drum; in sum: a divine being begets a divine object.¹¹¹

The written and spoken words were thus essential to strengthening and substantiating the ontological status of the divine hide; this was done by establishing analogical connections (discussed above), as well as orthographic changes to the semantic

105. The incantation is preserved in full length in the Neo-Assyrian tablet KAR 50 and its duplicates.

106. Lines 1-2 address the bull as “the creation of the great gods” (*binût ilī rabûti*) (Lenzi, 2018, pp. 68-69).

107. The incantation establishes the validity of the bull by simply stating it and does not mention any physical peculiarities that the animal should or should not possess (Lenzi, 2018, p. 74). Although not derived from physical qualities, the righteousness of the animal was nonetheless verified through them.

108. Lenzi, 2018, p. 78.

109. A reference to the Pleiades may be hidden behind the seven sons of Enmešara listed in the ritual (Gabbay, 2018, p. 21).

110. Such claim is achieved with a simple writing device: the addition of the semantic classifier for stars before the word “bull” (^{mul}gu₄-an-na). For more details about the astral context of the *lilissu* ritual, see Gabbay, 2018, pp. 31-37.

111. Gabbay, 2018, pp. 41-45 claims the divine nature of the bull, whereas Lenzi (2018, p. 87) recognized it as a special creation of the gods but not a divine being *per se*.

classifiers that preceded these materials.¹¹² One such transformation is found at the end of the ritual, where the semantic classifier preceding the term *lilissu* changes from bronze (ZABAR) to divine (DINGIR). Hence, the newly covered *lilissu* drum was understood as “divine” by means of various mutually supporting hermeneutic mechanisms, including analogy, written and ontological transformation, and etiology, *i.e.* the divine source of the hide itself. Celestial bodies, deities, the bull, and the drum were intertwined in a derivational pattern that mirrors the cosmological network found in the creation of the divine statues reported in the *mīs pī* ritual.

Once the bull entered the workshop, the whole space underwent a specific purification process that prescribed, almost verbatim, known conjuring acts known from the anti-witchcraft tradition for averting evil and securing cleanliness. These acts included sweeping of the floor, sprinkling holy water, setting up basins for Kusu and Ningirima, offering loaves of bread and *mirsu*-confection made with honey and ghee, sheep and roast meat offerings, and scattering fine flour.¹¹³ Once it was established that the bull was intact and without imperfections or abnormalities, a second requirement had to be met for gaining access to the divine realm: namely, a pure and immaculate condition. One of the rituals to achieve purity was the “washing of the mouth” (*mīs pī*), which was performed twice during the *lilissu* ritual: before the bull’s slaughtering (col. ii 8-13) and then again, when the drum was finished (col. iii 23-27). In accordance with other induction rituals, after the selection and the purification rites, incantations and prayers were sung to strengthen actions with speech acts, which culminated in the whispering of the bull’s destiny into its ears (col. ii 14-15). Only then was the bull ready to die and be reborn as the beating heart of the god.¹¹⁴

In the midst of this elaborate ritual, we find technical procedures for leather processing. Among the known duplicates,¹¹⁵ the leatherworking instructions preserved on TCL 6, 44 are the most detailed. Due to the relevance of the *lilissu* ritual for

112. The process of rewriting the name is in line with the Mesopotamian thought that establishes the equivalence between the act of name-giving and that of putting into existence. On the topic, see Radner, 2005.

113. On these elements, see Schwemer, 2011, pp. 418-442 with bibliography. On the role of *Kusu*, cf. § 1.2.

114. The *lilissu* ritual prescribes the closing of the curtains of the *bīt mummi* just before the first mouth-washing and their loosening after the flaying of the bull, a timespan corresponding to the death of the godly animal. Note that the dark ambience recalls both the Apsú and the womb (on these latter, see Woods, 2009, p. 204).

115. TCL 6, 44 col. ii 16-32 and col. iv 19-28 for the ingredients and tools using for processing the drumhead; BaM. Beih. 2, 5 rev. 27-30; KAR 60 rev. 5-11.

the cultic history of the Late Babylonian period, this technical excursus has received far less attention than other sections, with the notable exception of Mirelman 2010.

TCL 6, 44 col. ii 18-29 (after Linssen, 2004, p. 257)

“You will remove the sinew from its left thigh, and you will bury the carcass of that bull in a red *kur.ra*-cloth. You will pour ordinary oil on it. You will place its face towards the west (the setting sun). You will take the hide of that bull and soak it in *isqūqu*-flour of pure grain, in water, first-quality beer, wine. You will lay it in the ghee from a pure cow and aromatics from their vegetables, with 4 litres of malt flour, 4 litres of *bitqu*-flour of standard quality. You will steep it with madder, and alum from the land of Ḫatti. Then you will cover the bronze kettledrum (with it). On the kettledrum you will pull taut by means of line rope. You will (wrap) pegs of sissoowood, boxwood, cedar, ebony, and the rest of the pegs, all of ash-wood, for the bronze kettledrum with pure glue”.¹¹⁶

The Seleucid text separates the procedural instructions in the second column from the list of ingredients and tools used during the process, which appear in the fourth column at the end of the tablet, right before the colophon. The list sorts materials and equipment according to the craftsmen who provide them,¹¹⁷ illustrating the workshop’s organization and artisanal collaboration.

The spot where the bull is going to be slaughtered is covered with a reed mat that sits upon and is surrounded by sand (col. i 12-15), which served both an apotropaic and practical function, perhaps to soak blood spilling. Once dead, the heart of the bull was burnt with aromatics in front of the bronze kettledrum, while the carcass, from which hide and tendons were removed, was buried in a red cloth facing west, a clear reminder of the netherworld.¹¹⁸ The bull was then flayed and its hide soaked in a mixture of water, first-quality beer and wine, and a lost quantity of *isqūqu* flour made of “pure grain” (𒀭NISABA KŪ.GA) (col. ii 21-22).¹¹⁹ The drenching of the hide

116. On the basis of the duplicate KAR 60, rev. 10, a possible integration for line 29 could be: *a-na LI.LI.ĪZ ZABAR ina ŠE.GĪN KŪ.GA [tal₂-pap]*. Mirelman, 2010, pp. 50-51 already pointed out that ŠE.GĪN designates more correctly “glue” instead of “paint” (*contra* Linssen, 2004, p. 295, l. 29); however, glue could be occasionally used as binding agent for colorants (Stol, 1980-1983, p. 529).

117. The text is broken in the section where we expect to find the craftsman associated with leather processing (col. iv 19-20).

118. On these ritual acts and their connection with cardinal points (west/east), see Gabbay, 2018.

119. Both Seleucid versions made use of the determinative for divine name (𒀭NISABA KŪ(.GA)), achieving a pun between the “pure grain” and Nisaba, the goddess of grain and scribal arts.

was meant to clean it from any residual flesh and hair (depilation).¹²⁰ In addition, the process cured the hide and stopped its natural decay.

A second bath followed, containing ghee “from a pure cow”, aromatics, four litres of malt and four litres of *bitqu*-flour of standard quality (col. ii 23-24).¹²¹ The use of fat substances points to a preliminary oil tanning, which was usually applied to obtain a softer product (chamois).¹²² Thereafter, an additional tanning process (tawing) is carried out, wherein the softened hide was treated with a mixture of alum from Ḫatti (*gabû*, NA₄.KUR.RA)¹²³ and madder (*hurātu*, GIŠ.ḪAB).¹²⁴ The combination of the two tanning methods would have resulted in a soft, elastic, and resistant leather.¹²⁵ Although the text does not specify the timing of each step, it clarifies that the entire process lasted 15 days.¹²⁶

The instructions provided in the *lilissu* covering ritual mirror what we know of the dyeing procedures from administrative texts. Leather industry is attested in the cuneiform records as far back as the 3rd millennium BCE and even in the earliest known sources the leather components of the *kalû* musical instruments were dyed red.¹²⁷ The use of red colored garments and accessories has a long history in the Near Eastern cultures, and it is often associated to contexts of liminality,¹²⁸ as also suggested by the

120. A warm temperature of the liquid was needed to favor the maceration of the vegetable components (Sigrist, 1981, p. 144). For a discussion on the tanning procedures, see Scurlock, 2008.

121. In the Neo-Assyrian (KAR 60) and the shorter Seleucid (BaM. Beih. 2, 5) versions, ghee is mixed with alum and madder.

122. Tanning with flour was still practiced in 19th century Iran. For each hide an average of 6.1-6.7 kg of flour were required (Potts & Henkelman, 2021, p. 287), a proportion roughly confirmed by the 8 litres of malt and flour prescribed in the *lilissu* ritual.

123. In the Neo-Assyrian sources, the toponym Ḫatti identified the Syro-Levantine area (RGTC 7/1 and 8), a geographical reference closer to the historical provenience of alum. In the Late Bronze Age, alum was indeed brought from Ugarit (Devecchi, 2022, p. 293, fn. 99). I would like to thank Elena Devecchi for these references.

124. For the identification of GIŠ.ḪAB, *hurātu* with madder (*Rubia tinctorum*) and its use for dyeing leather with a red hue (*šarāpu*), see Stol, 1980-1983, pp. 534-535. On madder, see Bröns, 2019 with related bibliography.

125. Mirelman, 2010, p. 50.

126. TCL 6, 44, col. iii 15-16: “On the 15th day you will bring out the bronze kettledrum before Šamaš”.

127. Cf. UTI 4 2849 (obv. 4) and BPOA 7 1559 (rev 3-4), from the Ur III period, and BIN 9, 455 (obv. 1-4) from the early Old Babylonian period. For more details, see Gabbay, 2014, pp. 118-120 and 2018, p. 6; Shehata, 2014, pp. 115-116.

128. Cf. red garment and headdress used during the installation of the high-priestess of Emar (Fleming, 1992, pp. 52-53, ll. 23 and 42), or the ample use of red wool for the fabrication of purifying torches in the Old Babylonian period (Michalowski, 1993; Biga & Roccati, 2012, p. 80), in 1st millennium anti-witchcraft rituals (Abusch & Schwemer, 2016), and for amulets (Simkó & Stadhouders, 2020).

burial of the bull's carcass in a red cloth. Moreover, the association with death is not alien to the *kalû*'s performance, which had a strong connection with funerary rites in 3rd millennium BCE.¹²⁹

Well attested in the administrative records of the 1st millennium is the allocation of materials to leatherworkers; these materials included oil, alum, madder and other dyeing substances, as well as the flour necessary for the pre-tanning stage.¹³⁰ The production of leather, both in terms of ingredients and techniques, shows a long continuity of artisanal know-how in temple institutions.¹³¹

As the leather dried, the cover was secured to the bowl-shaped drum using a linen rope. More than a dozen wooden pegs were inserted into the holes of the frame to adjust the tension of the membrane in order to tune the instrument.¹³² Finally, the opening of the drum was fastened with the sinew from the left thigh of the bull, and the unused remains of the hide were buried (col. ii 26-32). The ritual prescribes that twelve of these pegs, in groups of three, should be made of sissoowood (*musukkannu*, ^{gis}MES.MÁ.GAN.NA),¹³³ boxwood (*taskarinnu*, ^{gis}TASKARIN), cedar (*erēnu*, ^{gis}EREN), and ebony (*ušû*, ^{gis}ESI), whereas the remaining part – whose quantity is unspecified – should be made of ash (*martû*).¹³⁴ TCL 6, 44 is unique in specifying the types of wood listed here, a feature that keeps with the elaborate style used in this text. In fact, the Neo-Assyrian tablet KAR 60 and the shorter Seleucid version BaM. Bah. 2, 5 report only the use of “pegs” (^{gis}GAG.MEŠ) and “pegs (wrapped) in acorn-shape” (^{gis}NAGAR ^{gis}GAG.MEŠ). It is likely that the use of diverse and exotic woods enhanced the aesthetic value of the drum by creating the effect of a multi-colored scheme having diverse shades, densities, and grains of timber.

129. As demonstrated by Gabbay, the connection to the funerary context is however lost after the 3rd millennium (Gabbay, 2014, pp. 18 and 71).

130. For the Neo-Babylonian period, see Joannès, 1984 and Quillien, forthcoming; for the Achaemenid period, see Potts & Henkelmann, 2021.

131. Quillien, forthcoming, p. 15.

132. In KAR 60 and TCL 6, 47 seven (bronze) “hands” are added to the *lilissu*. These hands, named after deities, may have functioned as tensioning rods or bolts to tune the drum (Gabbay, 2014, p. 129). In many cultures, the insertion of small objects, herbs, or liquids, inside the drum acted both as tuning mechanism and as symbols of spiritual forces.

133. For the identification of the *musukkannu*, ^{gis}MES.MÁ.GAN.NA with the sissoowood (*Dalbergia sissoo* Roxb.), see Gershevitch, 1957, p. 16; Tengberg *et al.*, 2008.

134. The writing *maštû*, reported in TCL 6, 44 is only attested in Neo- and Late Babylonian period. For an identification of *martû* with the Syrian ash (*Fraxinus syriaca*), see Jimenez, 2017, pp. 217-218 and related discussion.

However, other considerations may be in order. The wood sequence found in TCL 6, 44 originated from lexical lists, where the same woods were often clustered in a similar order. Comparable sequences are also found in other ceremonial and ritual contexts, as in, for example, a *mīs pī* incantation (discussed in §1.3), where the timber used to create a cult statue derives from a pure or “holy” forest and is thus reflective of the vastness of the divine realm.¹³⁵ The sequence of the woods appearing on TCL 6, 44 may have thus been conceived in this way to recall cosmological connections based on cardinal points. In fact, the origin of the woods refers to two geographical areas: the west from which the cedar,¹³⁶ the Syriac ash,¹³⁷ and the boxwood were drawn, and the east from where ebony and sissoowood came.¹³⁸ The east/west opposition is ubiquitous in the *lilissu* ritual and its commentary, where it serves as the cosmic framework for the death of the bull and the creation of the divine drum.¹³⁹ The use of specific patterns of colors, materials, and drawings, which symbolize through cardinal points the cosmological vision of a given culture, is not uncommon in the tradition of ritual drums.¹⁴⁰ As temples, the drum may have represented a microcosm, uncorrupted, routinely reset to its pure origin, and beyond the limits of time and space.

3. CONCLUSIONS. CRAFTING PURITY

In our comparative examination we have been careful to structure our work employing two related approaches. The first is horizontal, *i.e.* we separately found and examined key terms, passages, and thematic relations within an heterogenous textual tradition, which often combines technical prescriptions and ritual procedures. The second approach, that we can call vertical or diachronic, examines *longue durée* questions that

135. Walker & Dick, 2001, pp. 114-117.

136. In Neo-Assyrian royal inscriptions, cedar is said to come from Lebanon whereas boxwood from the Mount Amma[nā]na, most likely the Anti-Lebanon (*e.g.* Tiglath-Pileser III, 30: 1-2). However, in earlier sources, cedar apparently comes from the east (Horowitz, 1998, p. 331).

137. The word for the Syriac ash, *martū*, reminds through homophonic value of the Sumerian word *mar-tu* (Akk. *amurru*) “west, westerner”.

138. While in 3rd millennium BCE sources ebony comes from Meluḥḥa (the Indus Valley), in the Neo-Assyrian period this wood is accounted among the tributes brought from foreign lands conquered by Assyria, including Ḫatti (Syria-Palestine), the Aramaeans, the Chaldeans, and the Arabs. These socio-political entities had indeed access to commercial routes branching to Africa and to the eastern countries beyond the Persian Gulf.

139. Gabbay, 2018.

140. See, for instance, the cosmological drawings on the *kultrún*, a ceremonial drum of the Mapuche culture used by the *machi* healers to attract cosmic and earthly forces (Trivero Riviera, 2018, pp. 91-94).

concern common traditions spanning more than one thousand years of intellectual history. Collectively, these two approaches highlight commonalities within and among cultural practices, including scholarly attitudes towards purity, and the overlapping textual traditions within which “purity” – and pure objects – were crafted.

We have argued that within the procedural text traditions discussed above, clear family resemblances may be found in the ritual introductions which call for the identification of pure and favorable days, the purification of production spaces and all entities that enter that space (be they human or non-human), and finally, the purification of raw materials. The linguistic register of the procedural texts themselves, which invariably instruct the generic “you”, frames these two approaches. The pronoun “you”, which lies at the heart of Akkadian procedural texts, creates both a sense of ambiguity regarding the actors that performed such rituals, and, at the same time, a sense of historical dialectic wherein “you” as the subject, become an active agent in interpreting, enacting, and transmitting the knowledge contained in these texts. That these thematic and linguistic elements are shared by the procedural texts in question, however, should not indicate that they come from a single cultural locus.

On the contrary, while couched in an Akkadian procedural format that finds its roots in the early 2nd millennium BCE, the intellectual history of purification rituals is far from static or conservative. Dynamic variations of “mouth washings” are found, as we have seen, in the making of cult statues, the crafting of a *lilissu* drum, and in a wide range of late texts which mention the “mouth washing” of a river, or the “mouth opening” of jewels placed on the king’s chariot. Within the long textual history of the *lilissu* drum ritual alone, we can identify changes in content and context of the procedure. Over the course of a millennium, hemerology – the scholarly practice of choosing a favorable time – saw a gradual preference for astral knowledge. Indeed, by the Seleucid Period, the *lilissu* covering ritual brings forth how astral premises were essential to the success of the performance, both in terms of timing, *i.e.* the visibility of the Taurus constellation in the sky, and cultic efficacy, *i.e.* the role of the god in channelling the divine from the bull to the drum. These astral connections, well-represented in the diagrammatic commentary TCL 6, 47, point to a Seleucid cultural context wherein astronomical expertise is central to scholarly explanation. Furthermore, as Gabbay and others have argued, the rise of Anu as the supreme god of the heavens and the netherworld during the Seleucid era is reflected in the new cultic background for the performance of the *lilissu* drum ritual, distinguishing the late versions of the text from the earlier Neo-Assyrian recension.

Purification has been further examined through the role of human and non-human agents, these include the *Kubu* of the glassmaking recipes, the *Kusu* of the *mīs pî* and *lilissu* drum rituals, the divine bull, and the human experts including

the *barû*, *kalû*, *āšipu*, and *ummânu* experts. Collectively, these agents are responsible for the selection, use, modification, and purification of production spaces such as the *bît mummi* and the *bît kûri*. While earlier scholars in the history of religion, such as Mircea Eliade, have argued for the universal nature of birthing metaphors evident in such texts (e.g. the kiln represented as a womb), the specific hermeneutic mechanisms and scholarly contexts of these creation spaces (the *bît kûri* in particular) have received considerably less attention. By taking a comparative approach, we have found that the *bît mummi* and the *bît kûri* occupied a similar cultural locus. Both were physical and ontological workshop, decontaminated and restricted spaces wherein pure material objects could only be manufactured by the selected few, and only by means of divine ordinance.

Moreover, achieving material purity within the procedural texts examined in this work is predicated on knowledge of sourcing and performativity. In the production of cult statues this involves sourcing wood from a holy forest; in glassmaking, kiln wood cut during a propitious month containing no imperfections (i.e. visible knots); in the *lilissu* ritual, the selection of a divine bull unmarred by physical imperfections and using only pure materials for manufacturing the drum. The performative aspect of the texts is exemplified by the rich corpora of incantations accompanying the procedures, particularly in the *mīs pî* and *lilissu* texts. Incantations and ritual invocations interspersed throughout these procedures attest to a common performative framework, wherein materials are at once reconstituted both physically and ontologically through acts of material transformation and oral recitation, thereby reenacting a type of primeval creation, a re-birth of pure materials into pure things.

Faced with the question “what makes a thing pure?” scribes found meaning in plurality and repetition. The *mīs pî* and *lilissu* drum procedures underscore the extent to which achieving purity – whether temporal, spatial, or material – is only ever a temporary state, a process characterized in § 1 as an “iterative loop”, wherein actors and actants invoke a state of purity that lay beyond linear conceptions of time, where purity lay unaltered by the decay of time and the corruption of human agency. Read as “iterative loops”, mouth-washing procedures functioned, equally, as treatises on the *maintenance* of cult objects. Regarding the question “who makes a thing pure?” § 2.3 details the degree to which craft expertise was a matter of co-production between various experts, all of whom participated in the textual, physical, and ontological transformations of a divine object.

These areas of thematic overlap yield a number of significant conclusions. As stated at the outset, the relationship between technology and ritual – and by extension, our understanding of where wisdom, secrecy, and skill reside in scholarly procedures – remain an under-examined and rich topic for future research. Furthermore,

we have emphasized the scholarly dimension of these craft procedures by bringing to light aspects of scribal hermeneutics. The case of *Kusu/Kubu* illustrate the degree to which notions of purity – including pure creation and birthing – are indexed even in the orthography of the deities associated with these procedures. This should not indicate that the texts considered here existed exclusively within the hermetic confines of scribal literature. Rather, the performativity of the texts, as discussed above, points to a living and vibrant co-production of cuneiform scholarship and craft practices. A full understanding of key concepts in Akkadian scholarship, such as “secrecy” *pirištu* and “expertise” *ummanûtu*, must be understood as existing within a dialectical framework wherein scribes and craftsmen enact and co-produce knowledge. Therein, we find an epistemic meeting point wherein conceptions of purity were crafted.

TABLE 1 NOTES

1. The introduction to the Nineveh tablet of *mīs pī* is composed of several tablets and fragments, the section translated here, following Walker and Dick's conventions, is reconstructed from manuscripts A, B, C, D, E, and S, for which see Walker & Dick, 2001, pp. 35-38 and 52-53.

2. Translation of the introductory section of the glassmaking recipes is based on a composite of three duplicate tablets from Nineveh K.2520+, K.203+, and K.6964+, or texts A, B, C in A. Leo Oppenheim's classic edition. Textual variations between these three tablets are few but notable, and may be consulted via open source digital editions published on ORACC using the following links: K.2520+ (Text "A") <http://oracc.org/glass/P394484>; K.203+ ("Text B") <http://oracc.org/glass/P393786>; and K.6964+ ("Text C") <http://oracc.org/glass/P396928>.

3. The Akkadian term *abnu* refers to both stones and kiln-made glass without reference to whether the material is real or artificial, discussed further in the section that follows.

4. Walker & Dick, 2001, p. 204.

5. *Mīs Pī* Tablet III, 89-97, translation: Walker & Dick, 2001, p. 151.

6. This particular passage is discussed in the section that follows; see also Walker & Dick, 2001, p. 150.

7. *Mīs Pī* V 12a-13b; note that "red gold" is written *kù-si₂₂ huš-a*, mirroring the orthography of the god Kusi-banda.

8. Scurlock, 2014, pp. 512-515.

9. Attestations of *Kubu* within medical prognostication texts can be confirmed in both Assyrian and Babylonian (from Uruk) sources. For example, in the following, from Scurlock, 2014, pp. 512-515:

DPS XL A 31-34 = *TDP* 220: 31-34:

31. If an infant is equally hot (all over) and his upper abdomen protrudes, "hand" of *Kubu* [wr. ^dKÜ.BI].

32. If the muscles of an infant's abdomen are unevenly colored with red and yellow, "hand of *Kubu*".

33. If an infant's insides are cramped and he is unevenly colored with yellow, "hand" of *Kubu*.

34. If an infant is continually cold and he gnashes his teeth, his illness will be prolonged: affliction by *Kubu*.

10. See Veldhuis, 2014, 7.2.2.1. For a thorough discussion of lexical commentaries see also Frahm, 2011, p. 242.

11. For an edition of Aa, see <http://oracc.org/dcclt/nineveh/P382578>.

12. An edition of Murgud may be found at <http://oracc.org/dcclt/nineveh/P365317>.

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