

Musical Cosmology and Acoustic Ontology in Enuma Eliş: Sound Naming and Numerical Order in Babylonian Creation Thought

Enuma Eliş Ekseninde Müzikal Kozmoloji ve Akustik Ontoloji: Babil Yaratılış Düşüncesinde Ses İsimlendirme ve Sayısal Düzen

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Özet

Bu çalışma, Babil Yaratılış Destanı Enuma Eliş'i (yaklaşık MÖ 2. binyıl), müzikal kozmoloji ve akustik ontoloji araştırmaları açısından birincil ve arkaik bir kaynak olarak ele almaktadır. Müzikal kozmolojinin entelektüel kökenlerini yalnızca Pythagorasçı, Platoncu ve Yeni Platoncu geleneklere bağlamak şeklinde tezahür eden yerleşik akademik eğilim, Mezopotamya kozmogonisinde saklı felsefi derinliğin bugüne değin sistemli biçimde incelenmesinin önünde önemli bir engel oluşturmuştur. Hermeneutik metin çözümlemesini, arkeomüzikolojiyi ve spekülâtif müzik teorisini bütünleştiren disiplinlerarası bir yöntemle yürütülen bu çalışma, destanda birbiriyle bağlantılı dört temel eksen ele almaktadır: farklılaşmamış bir akustik potansiyel zemini olarak primordiyal sessizlik; kaotik frekans ve kinetik varoluşun ontolojik kategorileri olan rigmu ve hubûru; kaostan harmoniyayı tesis eden düzenleyici akustik mekanizmalar olarak büyü ve isimlendirme (şuma zakâru); ve müzikal oranları kodlayan tonal bir mimari olarak altmışlık (sexagesimal) ilahi sayısal matris. Kilmer (1971), McClain (1994) ve Westbrook'un (2001) temel araştırmalarından hareketle bu analiz, Babil panteonunun Pythagoras'tan en az bir binyıl öncesine dayanan, kendi içinde tutarlı bir akustik-kozmolojik düşünce sistemini kodladığı (bünyesinde barındırdığı) şeklinde yorumlanabileceği olası bir okuma sunmaktadır. Çalışma ayrıca Eşarra–Esagil mimari simetrisinin bir speculum teolojisi olarak okunabileceğini öne sürmekte ve bu akustik geleneği Vedik kozmolojiye, Boethius'un Musica Mundana'sına ve Yeni Platoncu sudûr nazariyesine bağlayarak Osmanlı mûsikî nazariyatına kadar uzanan olası entelektüel yakınlık hatlarını incelemektedir.

Anahtar sözcükler: Enuma Eliş, müzikal kozmoloji, akustik ontoloji, Babil müzik teorisi, müzikoloji.

Abstract

This study investigates the Babylonian Creation Epic, Enuma Eliş (c. second millennium BCE), as a primary archaic source of musical cosmology and acoustic ontology. The prevailing academic tendency to confine the intellectual origins of musical cosmology to Pythagorean, Platonic, and Neo-Platonic traditions has long obscured the philosophical depth embedded in Mesopotamian cosmogonic literature. Employing an interdisciplinary methodology that integrates hermeneutic textual analysis, archaeomusicology, and speculative music theory, this study examines four interconnected axes within the epic: primordial silence as an undifferentiated acoustic ground state; rigmu and hubûru as ontological categories of chaotic frequency and kinetic existence; incantation and utterance (şuma zakâru) as regulative acoustic mechanisms that establish harmonia from chaos; and the sexagesimal divine numerical matrix as a tonal architecture encoding musical ratios. Drawing upon the foundational research of Kilmer (1971), McClain (1994), and Westbrook (2001), the analysis suggests a possible reading in which Babylon's pantheon can be interpreted as encoding an internally coherent system of acoustic-cosmological thought that predates Pythagoras by at least a millennium. The study further proposes that the Eşarra–Esagil architectural symmetry can be read as a speculum theology... and explores possible lines of intellectual affinity connecting this acoustic tradition to Vedic cosmology, Boethian Musica Mundana, and Neo-Platonic emanation theory, extending into Ottoman music theory.

Keywords: Enuma Eliş, musical cosmology, acoustic ontology, Babylonian music theory, musicology.

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Introduction

The history of music philosophy and speculative music theory has largely situated the intellectual tradition that interprets the workings of the universe—its ontological origins and structural order—through sound, number, harmony (*harmonia*), and vibration, within Pythagorean, Platonic, and Neo-Platonic frameworks. This approach, also referred to as "musical cosmology," gradually solidified into a "Greco-centric" epistemological assumption that has long governed academic discourse. According to Amann, musical cosmology, which takes as its foundational principle the relationship between microcosm and macrocosm (Amann, 1967, pp. 198–227), is grounded in the idea that universal order can be perceived and interrogated through music—a notion as ancient as human consciousness itself, encountered first in myths, then in astral symbolisms, and at virtually every juncture in cultural history (Kayser, 1970, pp. 57–59). When Schneider turned to the origins of musical cosmology, he found himself in the mythology of the early Neolithic period; tracing associations among tones, elements, planets, zodiacal signs, and seasonal cycles, he developed the concept of "pre-musical cosmology" (Westbrook, 2001, p. 514). This ancient mode of thought has been sustained since Antiquity within an epistemological framework that encompassed all dimensions of the theoretical sciences of its time, penetrating philosophical traditions at their deepest levels. Yet the "Greco-centric" academic habit in question deserves serious interrogation. Contrary to claims that took shape in the nineteenth century, Babylonian and Assyrian music cannot be reduced to a merely primitive and sensory stimulus; rather, it embodies great craftsmanship, prestige, and philosophical depth—to such an extent that classical Greek thinkers styled themselves as "students" of this Near Eastern science (Sachs, 1943, pp. 101–102). In the ancient world, music, mathematics, astronomy, religion, and poetic-mythic narrative formed an inseparable whole; ancient cultures across Babylonia, India, Egypt, and China all shared comparable mythological imagery that placed particular numerical values at the center of the definition of musical intervals (McClain, 1994, pp. 2–3). Given that all these ancient civilizations shared this common ground, reading *Enuma Eliš* within this traditional framework is not an anachronistic interpretation; on the contrary, it may be regarded as the only historically coherent path toward approaching historical reality.

The view that cosmological theories attributing the 'Harmony of the Spheres' and a musically ordered universe to Pythagoras or Plato in classical philosophy may reflect possible transmission routes from Babylon—or that their most significant themes bear deep intellectual affinities with Babylonian thought—finds meaningful support in current philological and archaeomusicological research (Gurney, 1994, p. 105; Sachs, 1943, pp. 110–111). Early Greek thinkers adapted the principles of the diatonic scale arising from Pythagorean tuning from the Near East (Gurney, 1994, p. 106). The acoustic scale structure employed in Plato's model of the universe is entirely identical to the *išartum* tuning system preserved in Babylonian retuning texts (UET VII 74)—the system regarded as the generative sequence of the whole tonal apparatus (Gurney, 1994, p. 105). Furthermore, it has been explicitly documented, on the basis of musicologist David Wulstan's findings, that the very concept of the "Harmony of the Spheres" originates in the sequential ordering of octave-species in Babylonian music theory (Kilmer, 1971, p. 141). Indeed, the celebrated figures of Greek myth—Orpheus, Amphion, and Cadmus—are late mythological derivatives of the Bronze Age Near Eastern ritual-poetic tradition; the motif of Amphion building the walls of Thebes with a seven-stringed lyre is a direct reflection of Mesopotamian rituals of cosmic ordering and city-founding rooted in the belief in the seven divine beings (*sebittu*) (Franklin, 2006, pp. 54, 58). The cosmological and administrative-leadership significance that Greek thinkers such as Aristotle and Plato attributed to the "central string" (*mesē*) of the lyre is likewise a continuation, within the Greek world, of the center-string-oriented tuning logic of Mesopotamian music theory (Franklin, 2006, pp. 40–41).

In light of this evidence, to present the ancient theory of music and the intellectual tradition it generated as if it had been "invented" exclusively within the Greek world—severed from its Sumero-Babylonian cosmological allegories—is irreconcilable with historical fact. Around 3000 BCE, as the Sumerians were developing cuneiform writing and the sexagesimal number system, they assigned to the principal deities of their pantheon numbers that encoded the primary acoustic ratios of music; the mythological roles and

behaviors of these deities corresponded to the functions of these numbers in acoustic theory, thereby constructing an expansive tonal-arithmetical model of the cosmos (McClain, 1994, pp. 371–374). The theological interpretations blended within this intellectual tradition are, at their core, a mathematical allegory possessed of a profound musical logic.

Research Question, Method, and Literature Review

The tendency to evaluate *Enuma Eliš* (the Babylonian Creation Epic), composed in the second millennium BCE, solely as a theological-political text recounting the formation of the Babylonian pantheon or the rise of Marduk to power—while keeping it at a remove from the context of music philosophy—represents a significant lacuna in the field of systematic musicology. The epic is an archaic data source of primary importance for music philosophy, one that advances an original model of "musical cosmology" and "acoustic ontology" along the axes of silence and noise, incantation and magic, naming and numerical ratio. Throughout history, music has been recognized as a vehicle for journeys to higher planes of existence, a manifestation of divine and cosmic law, and an enduring instrument of wisdom employed in human self-transformation (Godwin, 1986, p. ix). The aim of the present study is to develop a reading that integrates hermeneutic, philological, and speculative music theory perspectives, thereby demonstrating through an interdisciplinary method the depth and originality of the theoretical data that *Enuma Eliš* offers along the axes of music philosophy and musical cosmology.

The central research question of this study may be formulated as follows: What model of "musical cosmology" and "acoustic ontology" does *Enuma Eliš* advance along the axes of silence–noise, incantation–magic, and name–numerical ratio, and at what levels does this model establish relationships of structural analogy with Vedic, Pythagorean, and Neo-Platonic traditions? To answer this question, it is necessary to examine the semantic fields of Akkadian terms (*rigmu*, *hubūru*, *šimtu*, *šuma zakāru*, etc.) in conjunction with current philological research, to analyze the divine numerical codes within the framework of the music-theory tradition, and to evaluate the ritual-acoustic function of the text within its philosophical context.

Enuma Eliš takes its name from the opening words of the text, meaning "When above (the heavens had not yet been named)"; recorded on seven clay tablets and comprising slightly more than a thousand lines, it stands as one of the most important masterpieces of the Babylonian literary tradition (Heidel, 1972, p. 1). Contrary to widespread belief, *Enuma Eliš* is not essentially a pure creation (cosmogony) narrative; the creation scenes account for less than one fifth of the text. The primary purpose of the work is to legitimize, on religious and cosmological grounds, the ascent of Marduk—the local deity of Babylon—to the summit of the pantheon following his victory over the chaos monster Tiamat; the text reaches its culmination with the proclamation of the "Fifty Names" declaring Marduk's absolute sovereignty. Beyond exalting Marduk, the epic also elevates his city, Babylon, to a sacred plane: the city is presented as the first city built by the gods themselves (the Anunnaki) as the dwelling-place of Marduk at the dawn of cosmic time, thereby asserting Babylon's political supremacy over rival cities (Heidel, 1972, pp. 10–11).

The epic held immense cultural importance in Mesopotamian religious practice; on the fourth day (Nisan 4) of the New Year (Akitu) festival held at the Esagil temple in Babylon, it was recited in its entirety by the high priest before the statue of Marduk. These recitations served as a form of protective incantation intended to prevent the spring flooding of the Euphrates and Tigris rivers from once again reducing the land of Babylon to a chaotic body of water (Lambert, 2013, p. 6).

W. G. Lambert's *Babylonian Creation Myths* (2013) is recognized as the most comprehensive and current philological edition of *Enuma Eliš* produced to date. Lambert presents the complete text of the seven tablets alongside the variants of the cuneiform copies and detailed lexical commentary, noting that the basic unit of the poem is the "line" and that each verse closes with a trochaic pattern (*Clausula Accadica*) formed by a stressed syllable followed by an unstressed one (Lambert, 2013, pp. 17–18). This formal characteristic points to the degree to which the rhythmic and acoustic dimension was determinative in the oral performance of the epic.

Benjamin R. Foster, in *Before the Muses: An Anthology of Akkadian Literature* (2005), situates Enuma Eliš within the broader intertextual context of Akkadian literature. According to Foster, the epic is an example of intertextuality in which Akkadian and Sumerian traditions are interwoven: its heroic roles were modeled on the narratives of the war god Ninurta—whose functions were directly transferred to Marduk—while the scene of humanity's creation drew on the Atrahasis Epic (Foster, 2005, p. 25). A deliberate stylistic shift is observable in the narrative structure: whereas the first half employs the dense "repetition of embedded discourses and dialogues" to convey the torpor of the generation of older gods, once Marduk assumes his commission and enters the fray the narrative transforms into a rapid-paced action containing virtually no repetition. Foster attributes the secret of this literary masterpiece's survival across generations to its embeddedness within institutionalized cultural practices—specifically, its regular recitation at the New Year (Akitu) festivals of the Late Babylonian period (Foster, 2005, pp. 30–46).

Taken together, these editions and translation studies have answered many questions regarding the epic's cosmogony, theology, and literary structure; however, a systematic academic reading that approaches the text from the perspective of "musical cosmology" and "philosophy of sound" has remained insufficiently explored in this literature. The present study aims to fill precisely this gap.

The process of understanding and transmitting the connection between music and anthropological, cultural, and historical belief systems is a complex undertaking that cannot be accomplished through literary text analysis or traditional musicological methods alone; it requires the integrated examination of material cultural remains, iconographic documents, and ancient sound practices. This epistemological necessity gave rise to archaeomusicology as an interdisciplinary field that combines the material-find-centered methodology of archaeology with the historical, structural, and cultural analyses of musicology (Hickmann, 2003, pp. 121–123). In its most comprehensive definition, archaeomusicology concerns itself with the systematic interpretation and historical reconstruction of past musical behaviors, sound-producing instruments, cuneiform documents, and iconographic elements depicting musical scenes (Olsen, 2007, pp. 12–13).

Anne Draffkorn Kilmer's work constitutes a decisive scholarly benchmark for establishing the connection between Enuma Eliš and music theory. While examining the Old Babylonian mathematical coefficient tablet CBS 10996 in the University of Pennsylvania Museum, Kilmer highlights that references to musical strings and intervals represent "in all probability a forerunner and parallel" to the importance that the musical string acquired in Pythagorean theory (Kilmer, 1971, p. 132). Music theory in Mesopotamia had become sufficiently systematized in the first half of the second millennium BCE (the Old Babylonian period) to assign technical names to notes, intervals, modes, and tuning procedures. Cuneiform tablets such as U.7/80 conclusively demonstrate that a seven-tone (heptatonic) scalar system and its octave species were institutionalized in Mesopotamia long before Pythagoras (Kilmer, 1971, pp. 132–139). Cuneiform music tablets found across a wide geographical expanse—at Ur, Nippur, Sippar, Assur, and Ugarit—confirm the existence of a shared musical terminology and seven-tone scalar cycle throughout Mesopotamia and Syria, pointing to an intellectual chain extending back to the Late Bronze Age and even the Neo-Sumerian period: a musical koine (Franklin, 2006, pp. 39–40). The detection of Babylonian music-theory technical terms for intervals and tuning (kabli-te, kit-me, nid-qabli, etc.) preserved intact in texts from Ugarit (Ras Shamra) demonstrates that the music theory systematized in Mesopotamia constituted a shared intellectual and ritual language across a vast geography extending to Syria and the Mediterranean coast (Kilmer, 1971, p. 142).

In Babylonian belief, moreover, the patron deity of music is Enki/Ea, the god of the watery abyss, magic, wisdom, and the arts and crafts (Kilmer, 1971, pp. 131–132). The direct association of music with the cosmic depths and absolute wisdom testifies to its ontological and cosmic weight in early Mesopotamian thought. Richard J. Dumbrill's comprehensive work *The Archaeomusicology of the Ancient Near East* (2005) presents the musical terminology, organology, and theory of ancient Mesopotamia in an extraordinary corpus. Dumbrill's studies reveal how Babylonian mathematics and astrology were interwoven with musical tuning systems, and how mythological texts and epics were encoded as "tonal allegories" (Dumbrill, 2005). The rituals performed by priest-musicians in Mesopotamian temples demonstrate through archaeomusicological

findings that music functioned as a theurgic bridge of communication between the macrocosm (planets and gods) and the microcosm (humanity and society).

Ernest G. McClain's study "Musical Theory and Ancient Cosmology" (1994) stands as one of the most original and influential texts in the literature that approaches *Enuma Eliš* from a musical-cosmological perspective. At least a millennium before Pythagoras, as the Sumerians developed cuneiform writing and the base-60 number system, they assigned to their principal deities numbers that encoded the fundamental acoustic ratios of music: Anu = 60, Enlil = 50, Ea/Enki = 40, Sin = 30 (McClain, 1994, pp. 371–380). Within this universal arithmetical model, tuning theory and theology merge into a mathematical allegory possessed of a profound musical logic at its core (McClain, 1994, p. 375). The cyclical structure formed by the perfect-fifth and perfect-fourth intervals inherent in the nature of was concretized, in its early phases extending back to the reign of Gudea of Lagash (ca. 2144–2124 BCE, Second Dynasty of Lagash), as the 'double serpent' iconography symbolizing a cosmological order (McClain, 1994, pp. 386–387). According to McClain, the reorganization of the Babylonian pantheon in the second millennium BCE and Marduk's rise to supremacy—along with the cosmological narrative of Marduk vanquishing Tiamat, the symbol of chaos and the dragon—may be read directly as a musical allegory: Tiamat represents the continuum of possible pitch levels symbolized by an undivided string; Marduk, by bisecting the dragon at its precise midpoint, establishes the fundamental 1:2 octave interval, and each subsequent division produces the other musical pitches (McClain, 1994, pp. 15–16).

Anthony Peter Westbrook's doctoral thesis *The Divine Vina and the World Monochord* (2001) is the reference study that most comprehensively maps the musical cosmology tradition from the *R̥g Veda* to Robert Fludd. Westbrook documents that the notion of the "Music of the Spheres" and the idea that the universe is constructed upon musical ratios such as the "Great Chain of Being" are not exclusively Greek; their roots lie in a "profoundly ancient tradition" grounded in Babylonian, Sumerian, Egyptian, Jewish, and Indian sources (Westbrook, 2001, pp. 5–9). Similarly, in *Sonic Theology* (1993), Guy L. Beck systematically establishes the Vedic parallels that support interpreting the primordial state at the Apsû–Tiāmat opening of *Enuma Eliš*—that unnamed, formless, and undifferentiated wholeness—not as "nothingness" but as "a source harboring infinite potential" (Beck, 1993, pp. 73–121). R. Murray Schafer, in *The Tuning of the World* (1994), develops the metaphor of the universe being stretched and tuned like an instrument by a divine hand, emphasizing that the acoustic definition of space (the marking of territory) is far more ancient than property lines (Schafer, 1994, pp. 4–33). This argument provides a powerful theoretical ground for bringing Marduk's establishment of universal order through sound and incantation in *Enuma Eliš* into dialogue with contemporary philosophy of sound.

Approaching the text of *Enuma Eliš* through categories such as "musical cosmology," "acoustic ontology," and "philosophy of sound" raises an important methodological caveat: the conceptual frameworks in question belong not to the indigenous terminology of second-millennium BCE Babylonian thought, but to the literature of modern musicology, phenomenology, and sound studies. It must therefore be stated at the outset that this reading does not constitute a historical reconstruction or a rigorous philological endeavor aimed at proving that "the Babylonians genuinely practiced music theory."

The theoretical foundation of the method adopted here is Paul Ricoeur's textual hermeneutics. According to Ricoeur, the moment a text is committed to writing it becomes "distanced" (distanciation) from the author's subjective intention and original historical context; this distanciation transforms the text into an "open field of meaning," rendering it interpretable for readers of different eras (Ricoeur, 1976, pp. 91–95). Yet the act of interpretation does not mean arbitrarily bridging this distance; rather, it requires a process of appropriation through which the "world opened by the text" is brought into encounter with the reader's own horizon (Ricoeur, 1981, pp. 182–193). Ricoeur completes this dialectic through three phases of mimesis: mimesis I (pre-understood meaning), mimesis II (the fictional configuration of the text), and mimesis III (the reader's refiguration of the text within their own existential context). Within this framework, *Enuma Eliš* is taken as a fictional configuration (mimesis II) of the second millennium BCE, while the concepts of "musical

cosmology" and "acoustic ontology" are applied at the level of mimesis III—as a refiguration of the world opened by the text from the perspective of contemporary speculative music theory.

Furthermore, Ricoeur emphasizes that symbols and mythological narratives carry a "surplus of meaning" (surplus of meaning)—an excess that harbors interpretive layers extending beyond the original historical context in which they were formed (Ricoeur, 1970, pp. 13–18). The "surplus of meaning" carried at the acoustic-ontological level by elements such as *rigmu*, *šuma zakāru*, and the sexagesimal divine matrix in *Enuma Eliš* constitute concrete examples of this claim of symbolic excess. Accordingly, all the interpretive proposals advanced in this study are to be regarded not as claims of historical necessity, but as an interdisciplinary speculative hermeneutic proposal that heeds the symbolic surplus of the text. Scholars such as McClain (1994, pp. 2–3), Kilmer (1971, p. 131), and Westbrook (2001, pp. 5–6) have, from a comparable epistemic position, framed mythological narratives as "tonal allegory" or "cosmic allegorism," while explicitly acknowledging the speculative character of such readings.

The philological analysis in this study proceeds as follows. All quotations from *Enuma Eliš* are drawn from the Turkish critical translation of Adalı and Görgü (2016); the English renderings presented throughout this article are the authors' own translations from this Turkish edition, cross-checked against the philological commentary in Lambert (2013) and Heidel (1972) where discrepancies arose. The semantic range of key Akkadian terms (*rigmu*, *hubūru*, *šimtu*, *šuma zakāru*) was verified against the Chicago Assyrian Dictionary (CAD) and, where available, von Soden's *Akkadisches Handwörterbuch* (AHw), in addition to the lexical notes provided by Adalı and Görgü (2016) and Kilmer (1971). The comparative analysis of Babylonian, Vedic, Pythagorean, and Ottoman materials follows a criterion of functional-structural analogy rather than claimed historical identity: comparisons are drawn only where a given concept (e.g., naming as ontological act, numerical ratio as cosmological code) performs a demonstrably parallel function within its own textual tradition, as established independently by specialists in each field (Beck, 1993; Westbrook, 2001; McClain, 1994).

Findings: Evaluation of the Babylonian Cosmogonic and Cosmological Narrative on the Axis of Musical Cosmology

Primordial Silence and the Ground of Acoustic Ontology

Enuma Eliš opens with what may be regarded as the most fundamental question through which the universe can be interpreted within the framework of musical cosmology: where do sound and form begin? The opening lines of the First Tablet proclaim the absolute sovereignty of silence and formlessness in the following words: "When on high heaven had not been named, / Firm ground below had not been called by name, / Naught but primordial Apsû, their begetter, / And Mummu-Tiāmat, she who bore them all, / Their waters commingling as a single body..."² (Adalı & Görgü, 2016, p. 3).

The "namelessness" emphasized in these lines determines the ontological boundary of existence in ancient Mesopotamian thought: that which is unnamed does not yet properly exist. This principle is directly confirmed in lines seven and eight of the First Tablet: "When none of the gods had yet appeared, / When their names were unspoken, when destinies were not yet decreed..." (Adalı & Görgü, 2016, p. 3). Here, the waters symbolize an absolute wholeness in which rational and tonal differentiation has not yet taken place, corresponding to what acoustic philosophy would describe as "undifferentiated wholeness."

From the standpoint of the ontology of sound, this primordial condition finds a powerful parallel in Beck's linguistic-philosophical analysis of Hindu cosmology: at this most implicit stage, where sound and concept have not yet been separated, word and meaning are described as coexisting in an inseparable potential state; like a seed, what is at stake is a matrix that contains all cosmic resonances within itself while not yet having

² All English translations of *Enuma Eliš* cited in this article are the authors' own renderings from Adalı and Görgü's (2016) Turkish critical edition; they do not reproduce Lambert's (2013) or Foster's (2005) published English translations.

assumed determinate form (Beck, 1993, p. 73). A similar philosophical ground also appears in Indian thought: the concepts of Anahata Nāda (the unstruck sound) and Tad Ekam (the One Alone), signifying absolute unity, may be read as philosophical antecedents of the silent potential condensed in the mingled waters of Apsû and Tiāmat (Westbrook, 2001, pp. 235–236). From this perspective, the initial condition of Apsû and Tiāmat represents, in acoustic theory, a phase of pure potentiality in which sound has not yet acquired external form and has not yet undergone rational division. Silence, in this context, should not be understood as sheer nothingness, but rather as an ontological ground state that still contains within itself the entire spectrum of untempered frequencies, prior to contextual differentiation.

Rigmu and Hubūru: Noise and Chaos as a Cosmic Category

The static silence of the universe comes to an end in line twenty-one of the First Tablet, when the younger gods enter the scene of existence. The text makes clear that this rupture possesses an explicitly musical quality: the new gods “disturbed the peace in Anduruna with their clamor” (Adalı & Görgü, 2016, p. 4). Apsû voices this disturbance as a personal revolt: “They give me no rest; / By day I find no peace, and by night sleep does not come to my eyes” (Adalı & Görgü, 2016, p. 4). The philological note attached to the word rendered as “clamor”—defined as “1. Dance. 2. A noisy act that disturbs the peace”—demonstrates that the concept at issue signifies more than an auditory nuisance; it describes a kinetic act of existence as such (Adalı & Görgü, 2016, p. 4).

The glossary note itself supports this: ‘Rigmu: 1. Sound. 2. Shouting. 3. Divine sovereignty’ (Adalı & Görgü, 2016, p. 4). This range is consistent with the entry for rigmu in the Chicago Assyrian Dictionary (Roth et al., 1999, pp. 329–333), which likewise records the semantic span from ‘sound, noise, cry’ to ‘outcry, uproar’ and, in legal-religious contexts, ‘the voice/authority of a deity.’ The present study’s interpretation of rigmu as a marker of kinetic, life-generating disturbance draws on this attested semantic breadth rather than treating the term as a simple synonym for ‘noise’ in the modern sense. As clarified in the philological analyses of Kilmer, rigmu signifies the striving of newly emergent beings to gain space, the kinetic energy they generate, population growth, and the cosmic mobility produced by individuation (Kilmer, 1971, pp. 131–132). In the Old Babylonian Atrahasis epic as well, Enlil’s decision to destroy humankind by flood because of the rigmu they produce may be understood as the expression of the same conceptual logic: rigmu is the manifesto of the dynamic universe against the static universe.

Tiāmat’s being called “Mother Hubur” (Ummu Hubur—Mother of Noise) in the later sections of the epic also finds its proper place within this framework. After the phrase “Mother Hubur, creator of all things,” which appears in line 133 of the First Tablet, the text enumerates the eleven monsters brought forth by Tiāmat: horned serpent, dragon-serpent, laahmu, lion-men, wild dogs, scorpion-men, savage storm-demons, fish-men, and the great bull (Adalı & Görgü, 2016, p. 8). In the context of musical cosmology, these creatures symbolize uncontrolled and extra-systemic frequencies that threaten universal harmony (harmonia): chaotic vibrations transformed into dynamic sound waves that begin to occupy space within the cosmos, destabilizing both the static reference center represented by Anu’s number 60 and the geometrical equilibrium of Apsû, in accordance with the Event Model (McClain, 1994, pp. 3, 15).

Word, Incantation, and the Regulative Power of Sound: Acoustic Intervention from Ea to Marduk

One of the most striking dimensions of Enuma Eliš from the standpoint of the philosophy of sound is that the cosmic conflict is conducted primarily through the weapons of sound, utterance, and incantation. When Ea (Nudimmud), the god of wisdom and fresh water, learns of Apsû’s plan, he does not resort to physical attack; instead, as line sixty of the First Tablet explicitly states, he devises an acoustically grounded strategy: “He skillfully prepared his potent incantations, / He recited his spell over him and bewitched the waters, / Sleep poured over Apsû’s eyes, and Apsû fell fast asleep” (Adalı & Görgü, 2016, p. 5).

Ea’s incantation is not a random rigmu—not noise in its unformed state—but a measured, rhythmic, and structured sequence of utterance directed toward a determinate end. Within the conceptual framework that underlies ancient Near Eastern medicine and magic, the use of the human voice at a specific frequency, in a

specific rhythm, and through specific words could alter the physical laws of the universe (Kilmer, 1971, p. 131). Sound wave and vibration thus exceed the merely sensory domain and become ontological force. Ea's spell is therefore a vocal intervention that silences destructive and chaotic will—Apsû—and imposes upon it another frequency, that of order.

The same model of sonic warfare appears with even greater force at the climactic confrontation between Marduk and Tiāmat. In line ninety-one of the Fourth Tablet, Tiāmat is described as trembling “from head to tail,” while “she kept reciting her spell without ceasing” (Adalı & Görgü, 2016, p. 34). Marduk, too, enters battle “with an incantatory prayer upon the tip of his tongue” (Adalı & Görgü, 2016, p. 33). The winds that Marduk unleashes from the four directions represent, in the philosophy of sound, the primary medium through which vibration is conveyed: “He created the evil wind, the hostile wind, and the dust storm, / The fourfold wind, the sevenfold wind, the rain-and-lightning wind, the irresistible wind” (Adalı & Görgü, 2016, p. 32). In Schafer's terms, this scene may be read as one of the oldest mythological allegories of “the tuning of the world,” in which the cosmos is stretched and tuned like an instrument by a divine hand (Schafer, 1994, pp. 4–5).

The conflict reaches its climax in lines ninety-six to one hundred of the Fourth Tablet: “He loosed against her the evil wind that had followed behind, / Tiāmat opened her mouth to swallow the wind, / But the evil wind entered her so fully that she could not close her lips” (Adalı & Görgü, 2016, p. 34). Tiāmat's incapacity to produce her own voice or spell—that is, her being silenced—corresponds, in McClain's analysis, to the tonal and physical establishment of the fundamental octave matrix in the ratio of 1/2 (Sin 30) (McClain, 1994, pp. 386–387). The representative of chaos is thus destroyed from within by a storm of noise and subsequently split apart by Marduk's arrow (Adalı & Görgü, 2016, p. 34).

Naming (Šuma zakāru) and Tonal Identity: The Transformation of Beings into Frequency

Perhaps the most valuable element of *Enuma Eliš* from the perspective of the philosophy of sound and ontology is its philosophy of “name” and “naming” (Akkadian: šuma zakāru, nabû). In ancient Mesopotamian thought, that which has not been named has not yet acquired existence. The opening lines of the epic establish this principle as a foundational axiom. The act of naming—formulated in Akkadian as šuma zakāru / nabû—may be understood as the ontological practice by which a specific pitch is assigned within an otherwise formless continuum, thereby transforming it into a “note,” that is, into an objective being endowed with boundaries and frequency.

When Marduk creates humankind in the Sixth Tablet, he performs precisely such an act of naming: “I shall bring forth a gathering of beings; let its name be Man” (Adalı & Görgü, 2016, p. 47). Schafer's thesis that “to perceive, one must name; what loses its name is effaced from the universe” accords closely with the linguistic logic of the epic (Schafer, 1994, pp. 33, 51). Just as a dead, buried, or vanished sound departs from the field of resonance, so too does the unnamed fall outside the ontological scene of existence.

Within the philological texture of the epic, this ontology of naming is reinforced by phonetic resonances. The sound-play between mû, meaning “water” in Akkadian, and mu, meaning “name” in Sumerian, together with the name Mummû—Apsû's vizier—may be read as grammatical traces of the fact that Mesopotamian ontology encodes existence through a triangulation of sound, water, and name. Lines sixty-nine and seventy-six of the First Tablet concretize this multilayered semantic web: after killing Apsû, Ea establishes his dwelling and gives it the name Apsû (Adalı & Görgü, 2016, p. 5). To give a name is to delimit a place against chaotic waters and to assign to it an acoustic mode of existence.

Marduk's Fifty Names and the Sexagesimal System

After cosmic order has been established and humanity created in the Sixth Tablet of *Enuma Eliš*, the final two tablets are devoted almost entirely to the proclamation of Marduk's fifty names—fifty-one in some enumerations. The declaration issued by the great gods, the Igigû and the Anunnaku—“Let us proclaim his

fifty names”—shows that this listing is not a merely literary appendage, but rather a mode of communication that determines the functioning of the universe itself (Adalı & Görgü, 2016, p. 51).

In the Seventh Tablet, the functions of these names are elaborated in detail; each name represents a distinct law of the cosmos, an astronomical cycle, or a mechanism of justice. “Asari: the one who grants fertile lands and fields” (Adalı & Görgü, 2016, p. 57); “Tutu, the creator who renews nature, may they sanctify the temple chambers” (Adalı & Görgü, 2016, p. 57); “Nēberu shall hold the crossing-point of heaven and earth; / Let none pass above or below, but let them await him” (Adalı & Görgü, 2016, p. 62). The testamentary section of the epic commands the continuity of this ritual naming in the following terms: “These must be remembered, the elders of society must know them, / The righteous and the wise must speak of them among themselves, / Fathers must teach them to their sons, and they must be told to shepherds and herdsmen” (Adalı & Görgü, 2016, p. 62).

This ritual recitation performs the same cosmological function as mantra and japa yoga practices in Indian philosophy (Beck, 1993, p. 23). The universe is created through the utterance of these names, and the preservation of the cosmos is tied to the continual vibration of these frequencies through repeated recitation. According to McClain, the attribution of fifty names to Marduk signifies the mythological transfer of the tonal center from Enlil—whose numerical value is fifty—to Marduk himself (McClain, 1994, p. 386).

The fundamental arguments showing that this deep philosophical infrastructure in *Enuma Eliš* corresponds to a systematic music theory rest on the research of Anne Draffkorn Kilmer and Ernest G. McClain. Kilmer’s studies of cuneiform tablets such as CBS 10996, N 3354, and U.7/80 demonstrate that the Babylonians, at least a millennium before Pythagoras, employed heptatonic diatonic scales, fourths and fifths, complex tuning systems, and a developed musical terminology (Kilmer, 1971, pp. 132–139). The reference to musical strings in a mathematical context on tablet CBS 10996 has been described as a likely precursor and parallel to the significance acquired by the musical string in Pythagorean theory (Kilmer, 1971, p. 132).

McClain, in turn, argues that this music theory was employed not merely for instrumental performance, but for the construction of theology and cosmology. The numbers assigned to the major deities of the Mesopotamian pantheon are not arbitrary; rather, they are parts of a mathematical matrix—a “God Table”—that encodes musical ratios and universal harmony (McClain, 1994, pp. 374–375).

Table 1 The Babylonian Sexagesimal System

<i>God</i>	<i>Numerical Value</i>	<i>Acoustic Correspondence</i>	<i>Role in Enuma Eliš</i>
<i>Anu (An)</i>	60	Geometric center; reference frequency (mese), static	Ancestor of the pantheon, immobile heaven
<i>Enlil / Marduk</i>	50	Kinetic frequency producing major third (4/5) and minor third (5/6); new tonal center	The conductor who defeats Tīāmat, establishes cosmic order, and is honored with fifty names
<i>Ea (Enki)</i>	40	Perfect fifth (2/3); mechanism of wisdom and proportion	The sage who silences Apsū through incantation and uses ratios
<i>Sin</i>	30	The 1/2 ratio that establishes the fundamental octave matrix	Moon god; regulates temporal cycles
<i>Shamash</i>	20	The 1/3 ratio; judgment	Sun god
<i>Ishtar</i>	15	The 1/4 ratio; cyclical feminine principle	Venus; locus of variability and purity

Within this numerical hierarchy, the triadic structure formed by Anu (60), Enlil (50), and Ea (40) generates the basic major triad 4-5-6 in music—that is, do-mi-sol (McClain, 1994, p. 380). The cosmic triad is simultaneously the core of the mathematical model of the universe: as the numbers increase, the frequencies rise, and the cosmic functions within the pantheon correspond to this acoustic hierarchy.

Within the narrative of *Enuma Eliš*, Marduk's division of *Tiāmat* into two halves marks a critical threshold. As line 137 of the Fourth Tablet explicitly states, Marduk “split *Tiāmat* in two like a dried fish” (Adalı & Görgü, 2016, p. 57). According to McClain's speculative musical-arithmological reading (1994, pp. 386–387), this act can be interpreted as an allegory for the establishment of the fundamental octave matrix in the 1/2 ratio. It should be noted that this interpretation is McClain's own arithmological hypothesis rather than an attested emic (native Babylonian) statement about musical theory, and is adopted here as a heuristic analogy rather than a philologically demonstrated fact. (McClain, 1994, pp. 386–387). Thereafter, in the Fifth Tablet, Marduk orders the stars, creates the Moon god Nanna, and entrusts the night to him (Adalı & Görgü, 2016, p. 39). This celestial ordering constitutes the direct mythological precursor of Boethius's category of *Musica Mundana*—the musical order of planets and seasons.

The Esagil temple built by Marduk for the gods with 720 bricks over the course of two years (Adalı & Görgü, 2016, p. 49) completes the architectural expression of this acoustic-mathematical schema. McClain (1994) has proposed that 720 functions arithmetically as the smallest common index relating the seven diatonic octave species to a twelve-tone calendrical cycle; if this arithmological reading is accepted as a heuristic framework, the number could be seen as symbolically reinforcing Babylon's status as a cosmic center of tuning, though this remains a speculative numerological association rather than an attested Babylonian musical doctrine. The tower of the Esagil ziggurat, Etemenanki, with its horns rising toward the heavenly Ešarra, functions as a tonal and architectural mirror between heaven and earth, macrocosm and microcosm.

The Symmetry of Ešarra and Esagil: The Earthly Projection of Celestial Tuning

In the Fourth and Fifth Tablets of *Enuma Eliš*, Marduk's ordering of the cosmos is, in the most literal sense, an act of contemplative and intellectual architectural hierarchy. The transformation of *Tiāmat*'s defeated body into the raw material of cosmogony constitutes one of the most striking acoustic-architectural scenes of the epic: “He split *Tiāmat* in two like a dried fish” (Adalı & Görgü, 2016, p. 57). Marduk lifts one half upward and stretches it out as the sky (*šamāmu*); he then measures the dimensions of *Apsû*, the subterranean ocean of sweet water, and establishes Ešarra as its exact reflective counterpart, a celestial dome corresponding to it (Heidel, 1972, pp. 43, 94). By placing Anu, Enlil, and Ea within this celestial realm, he establishes the first center of macrocosmic tuning, whereby the principle of measure and proportion—and thus the act of tuning—assumes spatial and hierarchical form.

When Marduk divides *Tiāmat*'s chaotic body in two, he does not merely separate heaven from earth; he places a mirror upon the face of infinity itself. Ešarra, rising in the heavens, is a tonal reflection of the subterranean *Apsû*, while Esagil, constructed from brick upon the earth, becomes a perfect speculum of that divine geometry. This relation of proportion corresponds exactly to what McClain identifies in his analysis of the sexagesimal tonal matrix as the mythological allegory of the fundamental octave division in the ratio of 1/2: with the halving of the dragon that symbolizes the infinite continuum of sound, the measurable, tunable, and classifiable tonal scheme of the universe comes into being (McClain, 1994, pp. 386–387).

This symmetrical division at the macrocosmic level is completed when the gods, in gratitude for Marduk's wisdom and victory, raise Babylon and the Esagil temple upon the earth. In the Sixth Tablet, Marduk's plan is presented in the following words: “I shall found the city of Babylon; I plan it as your dwelling place, and within it I shall build your sanctuaries” (Adalı & Görgü, 2016, p. 49). Thereafter the gods construct Esagil with 720 bricks in two years (Adalı & Görgü, 2016, p. 49). The construction of Esagil is the physical replica on earth of the depths of *Apsû* and the celestial Ešarra above (Heidel, 1972, p. 48). As the temple's tower rises heavenward while its roots descend into the subterranean waters, the temple becomes both the center of the cosmos and the earthly reflection of the celestial model. Babylon is thus the speculative echo, materialized

below, of the cosmic architecture above. In Kilmer's account, this architectural symmetry offers a suggestive comparative parallel to the later concept of the Harmony of the Spheres, though establishing a direct line of influence would require further philological substantiation (Kilmer, 1971, p. 141).

In ancient Near Eastern theology, the world is not a random mass of scattered matter, but an immense "House" structured and provisioned through divine wisdom. As Van Leeuwen emphasizes in his analysis of Mesopotamian cosmology, temples and ordinary houses alike function as microcosms corresponding to the macrocosmic "House" that is the world itself (Van Leeuwen, 1997, pp. 399–400). This architectural theology unfolds in two stages: first the construction of the house, and then its filling or provisioning with offerings, waters, inhabitants, and abundance. In *Enuma Eliš*, these two phases are completed successively: after Marduk and Ea construct the universe, they create humankind so that the gods may be relieved of menial labor and enter into rest (Adalı & Görgü, 2016, p. 47). Humanity is thus a cultic labor force charged with filling and provisioning this cosmic house.

The cosmos is an immense structure built in the architectural language of wisdom. The house-building initiated in Ea's hidden chamber within Apsû is carried onto the earth through Marduk's founding of Babylon. Humanity, molded from clay and from the blood of a sacrificed god in accordance with Ea's ancient wisdom (*nēmequ*), is created to fill the chambers of this macrocosmic house with offerings, sacred waters, and fidelity, thereby ensuring the gods' repose (Adalı & Görgü, 2016, p. 47). This scene of creation corresponds directly to Boethius's category of *Musica Humana*, that is, to the principle whereby the harmony of body and soul reflects cosmic order.

As Jon D. Levenson has shown in his analysis of ancient Near Eastern cosmology, whether embodied as temple or as cosmic mountain, sacred space is an axis mundi where celestial and terrestrial reality intersect, and where universal decrees and tonal equilibrium are proclaimed (Levenson, 1988, pp. 111–123). The temple is the microcosmic refuge in which chaotic noise and indeterminacy are brought under control, and in which universal stillness and tuning are safeguarded. The celestial order established by Marduk after the construction of Esagil in the Fifth Tablet—the placement of the stars, the appointment of the Moon god Nanna, and the ordering of the sun and the seasons (Adalı & Görgü, 2016, p. 39)—is the mythological manifestation of precisely this axis mundi function: the temple is the resonant point through which the cosmic tuning above is transmitted below and preserved.

In Henry Corbin's philosophical lexicon, the term "speculative" derives from the Latin *speculum*, meaning mirror (Westbrook, 2001, p. 5). Speculation, in this sense, is not the production of abstract theory in the weak sense of conjecture; rather, it is the act by which an earthly subject or object—a temple, a human being—perfectly reflects, or mirrors, celestial and transcendent reality upon its own surface. In *Enuma Eliš*, the earthly order and temple structure created by Marduk function exactly in this sense as a *speculum*: the heavenly calendar, stellar order, and divine hierarchy are mirrored in the ritual life of the temple and in the architectural boundaries of Esagil (Heidel, 1972, p. 43; Van Leeuwen, 1997, pp. 401–402). The later analogy extending from antiquity to Renaissance mysticism "man as the small universe, cosmos as the great universe"—together with the Hermetic axiom "As above, so below," may be understood as speculative continuations of this Babylonian logic of structural mirroring. Through this *speculum*, the divine tuning above acquires visibility and spatial legitimacy below.

Indeed, Kilmer's demonstration of the connection between the Ešarra–Esagil symmetry and the Harmony of the Spheres provides the philological and musicological basis for this Hermetic continuity (Kilmer, 1971, p. 141). Babylonian ziggurats are the stone-and-earth embodiment of that primordial *speculum*—the polished mirror that reflects the celestial. When the Hermetic tradition states that "what is above is like what is below," it effectively translates into philosophical language the mirroring power by which Esagil reflects the heavenly Ešarra. This principle of cosmic architecture was transmitted through the Neoplatonic doctrine of emanation (*sudûr*) into Islamic thought, and from there into the cosmological symbolism of Ottoman music theory (Esen, 2022a, pp. 3–4; Esen, 2022b). The effort of Ottoman theorists of music to correlate the strings of the

oud, the makams, and musical branches with the four elements, zodiacal signs, and celestial cycles rests upon the same speculum logic by which Esagil conveys celestial geometry to the earth. When humanity raises a temple upon the earth or murmurs a hymn, it does not engage in a merely abstract construction; rather, it seeks to reflect, within its own speculative mirror, the primordial tuning of the heavens.

Discussion

The multilayered analysis conducted in this study demonstrates that *Enuma Eliš*, beyond being merely a Babylonian theological-political document, constitutes one of the earliest and most systematic archaic data sources in the literature of musical cosmology. The epic's progression through the motifs of silence (the initial state of Apsû-Tiāmat), noise (rigmu/hubūru), acoustic intervention (Ea's incantation, Marduk's winds), naming (šuma zakāru), the establishment of numerical proportion (the fifty names, the sexagesimal divine matrix), and architectural mirroring (the symmetry of Ešarra and Esagil) offers an integrated model of acoustic ontology that corresponds directly to the metaphor of the tuning of the world.

Although this text has been examined in depth in its philological and literary dimensions by authoritative sources such as Lambert (2013), Heidel (1972), and Foster (2005), it has not been subjected to a systematic inquiry from the standpoint of music theory and the philosophy of music. Musicological researchers such as Kilmer (1971), Dumbrill (2005), and McClain (1994), by contrast, have provided a strong archaeomusicological foundation for Mesopotamian music theory. The present study aims to pursue critical inquiry and produce knowledge precisely along the line of intersection between these two domains.

<i>Category</i>	<i>Babylon / Mesopotamia (Enuma Eliš)</i>	<i>Vedic / Indian (Upanishads, Sangīta Ratnākara)</i>	<i>Pythagorean / Boethian (Western speculative tradition)</i>
<i>Primordial Silence / Initial State</i>	The mingled waters of Apsû and Tiāmat; unnamed, formless, motionless absolute potential.	Tad Ekam (The One Alone): an undifferentiated wholeness beyond being and non-being; Anahata Nāda (the unstruck sound).	Chaos and apeiron: the unformed infinite; pure potential prior to the emergence of multiplicity from the One.
<i>Category of Chaos / Dissonance</i>	Rigmu and Hubūru: the noise of the younger gods, kinetic energy, life, and rebellion; Tiāmat as Ummu Hubur (Mother of Noise).	Avidyā (ignorance/blindness) and Māyā (illusion): the disorder that veils cosmic order; the powers of the Asuras.	Musical dissonance; a state of disorder opposed to harmonia in Pythagorean thought.
<i>Constitutive Function of Sound / Vibration</i>	Šuma zakāru (naming): in this study's speculative reading, that which is unnamed is treated as ontologically absent; the association of name with frequency and destiny (šimtu) is a heuristic analogy proposed here, not an emic Babylonian equation.	Vāk (sacred speech) and Śabda-Brahman: the universe consists of sound; sound is an ontological creative force.	Logos: sound as numerical proportion; discovery of harmonic ratios through Pythagoras's string experiment; word = order.
<i>Regulative Principle / Establishment of Harmonia</i>	Ea's incantation and Marduk's winds: the silencing of chaos through "acoustic intervention"; naming and numerical matrix.	Ṛta (universal rhythm/law) and Nāda-Brahman: cosmic sound is itself harmony; order is renewed through mantra.	Musica Mundana (Boethius): the orbital sound of the planets; numerical ratios keep the universe in tune.

Macrocosm- Microcosm Relation	Ešarra (celestial temple) = Esagil (earthly temple): exact symmetry; speculum theology; ziggurat as cosmic axis.	Brahman = Ātman: universal soul and individual soul are essentially identical; Divine Viṇā as the image of the universe as a stringed instrument.	Musica Humana (Boethius): the inner harmony of body and soul as the microcosmic reflection of the macrocosm; the human being as a small universe.
System of Number / Ratio	Sexagesimal system; Anu = 60, Enlil/Marduk = 50, Ea = 40, Sin = 30; the 4-5-6 major triad.	Shadja, Rishabha, Gandhara... the seven svaras; 22 śrutis (microtonal intervals); correspondence between number and timbre.	Tetraktys (1+2+3+4=10); the ratios of fourth, fifth, and octave (4:3, 3:2, 2:1); the Pythagorean comma.
Ritual Sonic Practice	The recitation of Enuma Eliš at the New Year (Akitu) festival; the continual invocation of Marduk's fifty names.	Japa Yoga and mantra repetition: preservation of cosmic harmony through the regular vibration of names/sounds.	The philosophical practice of music in the quadrivium; the concretization of universal ratios through musica instrumentalis.
Possible Lines of Intellectual Affinity³	Suggested contact zones: Babylon–Phoenicia–Egypt–Greece, following Franklin's (2006) cautious hypothesis of a Bronze Age 'musical koine'; not a documented linear transmission.	Rg Veda → Upanishads → Sangīta Ratnākara → intersections with ancient Near Eastern musical thought.	Comparative continuity within Western speculative tradition: Pythagoras–Plato (Timaeus)–Boethius–medieval quadrivium; possible, but not fully documented, extension toward Ottoman edvâr tradition via Neo-Platonic emanation theory (Esen, 2022a, 2022b).

The correspondences presented in this table are heuristic and comparative rather than claims of conceptual equivalence. Terms such as šuma zakāru, Vāk, Śabda-Brahman, and Logos emerge from distinct textual and doctrinal traditions and are not being equated; rather, each is shown to perform a structurally analogous function—rendering sound/word ontologically generative—within its own tradition, as independently established by Beck (1993) for Vedic sources and by standard accounts of Pythagorean-Boethian thought.

The four principal axes examined under separate headings in the Findings section—(1) primordial silence and acoustic ontology, (2) rigmu/hubūru and chaotic frequency, (3) utterance-incantation and the regulative power of sound, and (4) šuma zakāru and tonal identity—stand in a dialectical relation to one another and together constitute not a linear process but a cyclical model of cosmic musical thought. From the comparative side of the research question, the most significant observation is that the systems of musical cosmology—Mesopotamia, India, and ancient Greece—display a striking structural analogy in their acoustic-ontological premises.

The Babylonian act of “bringing into existence through naming” by means of šuma zakāru performs the same ontological function as Vāk (sacred speech) and Śabda-Brahman (the doctrine that the universe consists of sound) in Indian philosophy, and as the numerically and acoustically ordered world-construction of Logos in the Pythagorean tradition. The complete correspondence between the acoustic scale structure in Plato's Timaeus and the Babylonian išartum sequence demonstrates that this structural analogy rests on a philological basis rather than on a forced analogy. This analogy is partially supported by philological evidence (e.g.,

³ This row presents possible intellectual affinities and comparative parallels rather than a documented historical chain of transmission. Direct evidence of transmission routes—trade networks, textual borrowing, or documented contact—remains a subject for future philological and historical research.

Gurney, 1994, on the išartum-Timaeus correspondence), though it should be read as a comparative parallel rather than as proof of a shared or unified acoustic-ontological origin. Franklin's concept of the Bronze Age musical koine offers a meaningful middle path at this point: it is highly probable that acoustic-cosmological thought undertook a concrete historical journey through the networks of trade, temple, and ritual linking Mesopotamian, Aegean, and Indian civilizations (Franklin, 2006, pp. 54, 58).

Conclusion

The Babylonian Creation Epic has for centuries been interpreted predominantly as a theological narrative of sovereignty or as a cosmogonic text. Yet the interdisciplinary reading undertaken in this study demonstrates that Enuma Eliš also constitutes one of the ancient sources of musical cosmological thought. This study's interdisciplinary reading suggests that primordial silence may be understood as an undifferentiated acoustic potential, that noise (rigmu/hubūru) can be interpreted as an ontological category of kinetic life-energy, that magic and utterance may correspond to a tuning mechanism transforming chaotic frequency into structured sound, and that the act of naming can be read as drawing beings out of the formless universe by assigning them frequency. Taken together, these interpretive threads offer one possible framework for understanding the epic as a model of 'acoustic cosmogony.'

The academic habit of seeking the origins of musical cosmology exclusively in the Pythagorean and Platonic tradition falls far behind what the philological and archaeomusicological evidence indicates. The tonal hierarchy of the Babylonian pantheon encoded through the sexagesimal number system, the ritual resonant function of Marduk's fifty names, and the speculum theology of the Ešarra-Esagil symmetry all show that this tradition had already matured in Mesopotamia. This mode of thought exhibits structural affinities with the metaphysics of sound in Vedic cosmology, and shares suggestive parallels with the Pythagorean understanding of harmonia and Boethius's classification of Musica Mundana. While a fully documented transmission chain cannot be established on the basis of the present evidence, the recurrence of comparable acoustic-ontological structures across these traditions—as far as the cosmological symbolism of Ottoman music theory—merits further philological and historical investigation.

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